The Unesco Courier

FEBRUARY 1981 - 4.50 French francs

Cultural traditions and mass tourism

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Water Decade 1981-1990

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Brazil's Museum of the Unconscious

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TREASURES
OF
WORLD ART

159

. Iceland

Carved crucifixion

This head, a detail from a Crucifixion, is a very early example of Icelandic Christian woodcarving. It is thought to date from around 1150, a century and a half after the "land of ice and fire" was converted to Christianity. Although there are few trees in Iceland today, the Icelanders have inherited a long and rich tradition of woodcarving. If the most skilled craftsmen worked in the churches, many more made a living by producing beautifully sculpted household objects in native birch, imported fir and oak, or driftwood. Icelanders at every level of society spent the long winter evenings decorating furniture and utensils, and for centuries woodcarving was probably the country's most popular craft.

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Cover

When the international tourist boom began in the 1960s, few people foresaw its far-reaching social and cultural consequences, especially for the peoples in host countries. In article overleaf, Abdelwahab Bouhdiba highlights some of the often cruel paradoxes of this phenomenon of the modern world. Photo shows a Tunisian girl from Djerba.

Photo Yolka © Atlas Photo, Paris.

Right, air view of the old town of Kairouan (Tunisia). Its pattern of baked-clay roofs criss-crossed by long, narrow alleyways could symbolize the ancient cities and districts in many countries which have become major tourist attractions. Dazzled by the beauties of the landscape and the splendours of historic sites and monuments, tourists on a short visit may sometimes fail to make real contact with the life of the people in the host country. How to provide short-stay holidaymakers with the chance to return home with a real appreciation and understanding of different ways of life?—this is one of the challenges facing modern tourism.

Mass tourism and cultural traditions

by Abdelwahab Bouhdiba

ALTHOUGH mass tourism might seem to be an instrument for promoting peace and understanding among nations and friendship among peoples, its growth has been viewed in some circles with great concern.

Many people feel that exposure to hordes of visitors is bound to alter popular attitudes and beliefs, that tourism changes mentalities and spreads new concepts relating to work, money and human relationships, and destroys the ties that bind the people to their religion and ethics. In short, tourism is seen as a factor of acculturation in the worst sense of the word, and even of moral decay.

This accusation warrants calm and objective analysis. We hope that this brief study of the situation as it exists in Tunisia will help to put the general question in a better perspective.

For Tunisia, tourism is something that has developed recently, suddenly and by no means accidentally. Until independence the Tunisian hotel industry was insignificant. Nowdays over a million and a half tourists visit the country each year. They spend over fifteen million nights here and statistics show a strong upward trend. The annual increase may be as high as 20 to 25 per cent. The year-round figures are one tourist to every three inhabitants, and three "visitor-bednights" to each inhabitant.

Naturally, certain regions tend to be more heavily "invaded" than others. On the island of Djerba every single person depends on tourism, either directly or indirectly, for his or her livelihood. In Hammamet more than half the local families are engaged in it. Naturally, as there is no "tradition" of tourism, as such, in these regions, the phenomenon tends to look like a more or less well planned invasion. Hotels are mushrooming. The entire coast of the Gulf of Hammamet has been taken by storm while the "hinterland", barely 100 or 200 metres from the coast, remains deserted. Land speculation has spawned a new breed of landowners. The local people have not always benefitted from this manna from heaven.

Tourism was introduced into Tunisia deliberately. Tunisians realized that vacation facilities, sun and sea, are as much consumer products as anything else and can be marketed. With the incentives given to the construction industry and through use of the plentiful supply of semi-skilled labour, the hotel industry very soon proved itself able to alleviate the serious problem of chronic under-employment.

As it turns out, job creation in the tourism sector costs as little as one twentieth of the cost in the traditional industrial sector. At the present time the hotel industry employs more than 30,000 people. What is more, tourism has proved one of the key sectors in which profit margins have been sufficiently large to attract both national and foreign capital. The hotel industry has also opened the door to a whole chain of new employment opportunities. Last but not least, tourism has helped a great deal with Tunisia's balance of payments problems.

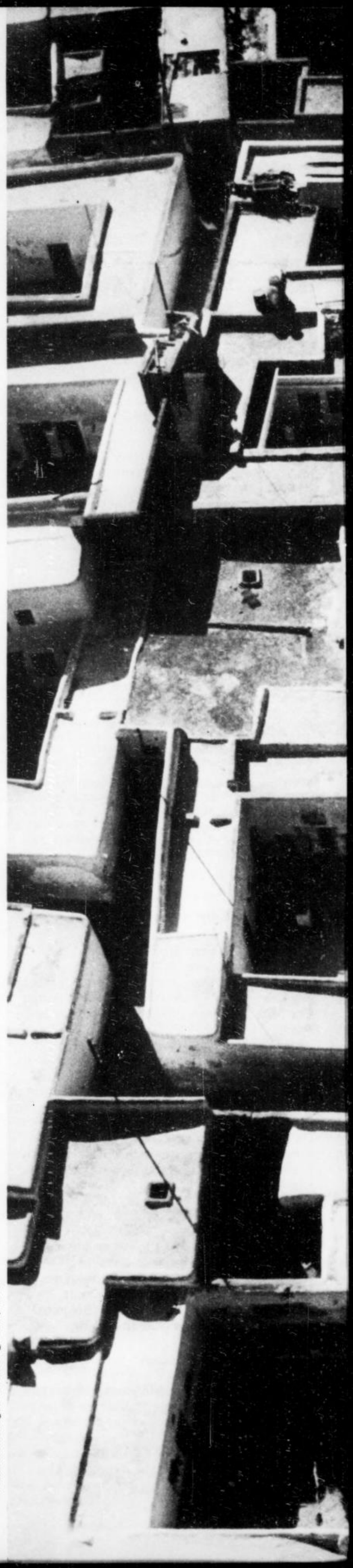
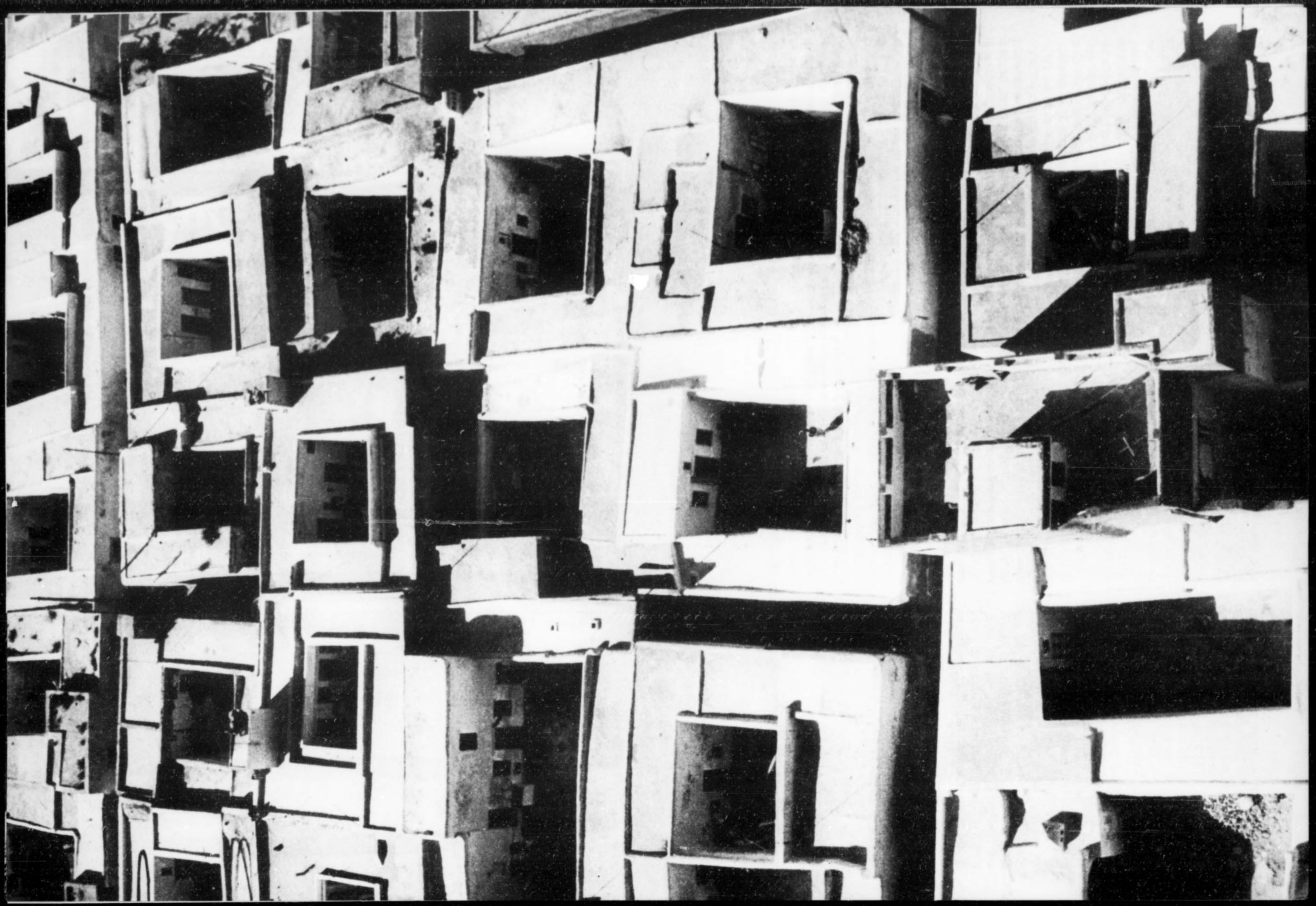


Photo Michelangelo Durazzo © ANA, Paris



PALMY DAYS? In host countries tourism was once thought of simply as a money-spinning passport to economic development. Today it is increasingly seen to have complex and sometimes unexpected cultural side-effects when it brings peoples together in an artificial situation in which real communication may be difficult.

In short, disproving the pessimism of earlier studies and despite the risks and fluctuations and the very real uncertainty of the sector, tourism has proved, at all levels and for everyone concerned, at least for the time being, a source of economic prosperity.

At the same time it is easy to see that only the economic factors have been taken into account. This of course is understandable, considering the urgency of combatting economic backwardness, and the fact that during the 1960s development was still a very real problem. There were very few of us who could distinguish between development and growth and who understood the importance of the human and cultural aspects. The human problems thus, as it were, forced themselves upon us in a spontaneous and quite haphazard fashion. Little by little we have been obliged to face up to the impact that tourism has had on our attitudes, our values, our beliefs and our outlook on life.

Let us disregard value judgements about the behaviour of the tourist himself. Much more significant is the relationship between the tourist and the host population. To begin with, the simple fact of the physical presence of groups of foreigners is bound to create new circumstances that affect personal relationships. The tourist does not come on any kind of business, but solely for recreation. He expects a whole range of services from us for which he is ready to pay at a price that is naturally assessed somewhat differently by the two parties but from which both stand to gain, although in varying degrees. This relationship with tourists is something completely new.

According to the traditional concept of relations between people, the bonds of hospitality are sacred. "Drinking water and eating salt" together creates a mystic bond, and hospitality is a communion from which grow lasting ties. Tourists, however, are guests of a different kind. Our tourist visitors are no longer rare passers-by sent by providence. They are sent to us in mass by travel agencies. Quantity dilutes quality. A close relationship between host and guest is no longer possible. Both know from experience that it will not last beyond the week or ten days' stay.

The occasional friendship that turns out to be exceptionally long-lasting cannot be said to be the rule, but applies only to a tiny minority. What was once the absolute rule of traditional hospitality turns out to be no more than a quirk of behaviour outside the norm. All the more since the tourist circuit is so organized, stereotyped, standardized and mechanized that it hardly lends itself to any

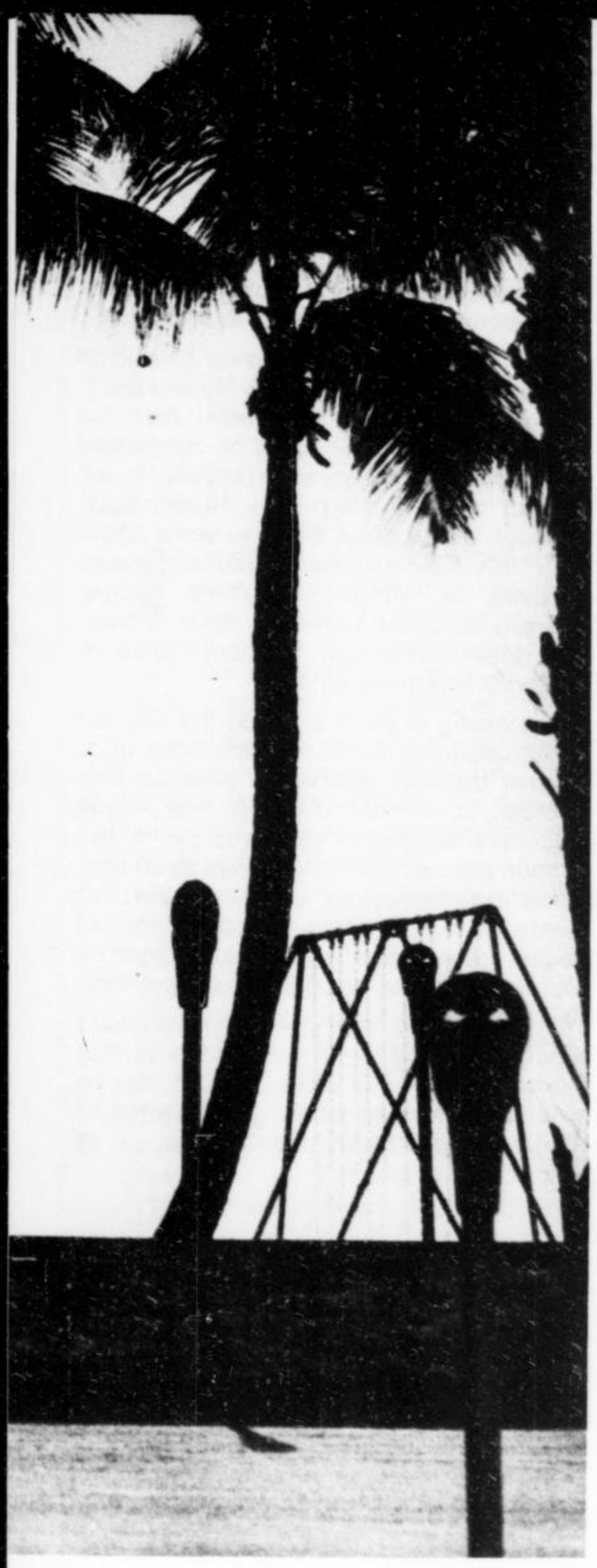


Photo René Burri © Magnum, Paris

outpourings of the heart or to any meetings of minds.

The same kind of comments could be made, of course, about the general development of economic relations. Traditional economic production was centred on the family where much of the work consisted of services for which there was no payment. The extension of the wage system to so many levels of the domestic economy has transformed into commodities services that were traditionally provided on a reciprocal basis. Instead of a society based on services mutually rendered we have a society increasingly dominated by money, in the form of the price tag.

There always was, however, one sector where money was very little involved... the recreation sector. Leisure activities were free in every sense of the word. It was unthinkable, for example, to have to pay to see people dance (and even more so to pay to dance oneself), to ride on a camel, or to bathe in the ocean. Now all these activities have to be paid for and have become highly lucrative.

Tourism did not create this profiteering mentality from scratch. It simply speeded up its development and accentuated it. But we must make sure that entire sectors of the population do not lose their natural sense of hospitality, and their traditional good manners.

But there is something even more important. With the advent of tourism the fundamental patterns of the consumer society are in process of infiltrating our own society. The tourists are Westerners on vacation who come here for a week of leisure and to get away from the year's accumulation of fatigue and worry. The tourist is a worker who has escaped. After slaving away all year he is allowing himself a change of scene and pace, régime and life-style. One might say that tourism introduces the behaviour of a wasteful society into the midst of a society of want. The rift between rich and poor societies here is no longer merely a theoretical scandal based on academic analysis. It is everyday reality.

The tourist's most insignificant possession represents a fortune or a dream for many of the Tunisians called upon to serve him and to come into contact with him, whatever may be involved—a beach ball, a beach towel, a lipstick or a pair of sunglasses. There is something diabolical about this constant temptation and this invitation to taste the extravagant and still forbidden fruits of the consumer society. There is a tremendous temptation to imitate and emulate the tourist.

In an enquiry into the problem of juvenile delinquency we were obliged to recognize that tourism with its perpetual temptations is an important factor in the misconduct of our young offenders. We discovered that juvenile delinquency in no way stemmed from the need to satisfy primary and immediate needs, but rather from secondary needs created by the development of a different mentality, new styles of behaviour, a new outlook on life.

Tourism has undoubtedly played a role in the changing pattern of morality. The tourist comes to have a good time. He wants cabarets, dance halls and night clubs. And to enliven things and create an "ambience", the local public is always welcome. There is no lack of critics to protest against these dens of "vice and debauchery". It would be wrong, however, to blame tourism alone for a trend which in our view is far more generalized.

The impact of tourism on traditional values and attitudes is real enough but should not be blamed for everything. It is simply a factor in accelerating a development that is already under way. Tourism acts as a catalyst, working in the same direction as the historical trends in the society as a whole. The main question is whether tourism, by speeding up developments which we see as inescapable, might not throw the machine out of gear when it is already being subjected to contradictory forces. The creation of new needs is an integral part of the development process. The ideal would be for new needs to appear only when society is ready with the means to satisfy them.

As an industry, tourism's role is to create these means. But as a social phenomenon its tendency is to reduce the impact of the means thus developed by causing these needs to appear prematurely. The problem is whether tourism, which is a production system geared to satisfy the consumption desires of outsiders, can develop in a climate of economic and moral austerity.

From another angle, tourism could be seen as a missed opportunity. It provides an opportunity for peaceful and friendly dialogue with those who in the past were not always favourable to us. Thus the education of the public and particularly of those sectors that come into direct contact with our visitors must aim at instilling the highest standards not only of welcome, courtesy and helpfulness but also firmness, dignity and strong national pride.

We should therefore like to see tourism become more of an encounter and less of a tour. An encounter is an exchange leading to discovery. The tourist who comes to visit my country does exactly what I do myself: he expresses himself in terms of his own culture. And this is how it should be; for it is the jolt of encountering others that tells him, by contrast, what he is.

Unfortunately, it does not always happen like this. The tourist does not always live up to our expectations, for a simple reason that has to do with his essential motivations. Basically the tourist comes to see the country rather than the people. He is someone who passes by without really seeing anything. And in any case, what does he want except to have his own prejudices confirmed and enjoy the comforts he is used to, including the false ideas he entertained about the country he is visiting?

Cultural mediation is virtually nonexistent. Local or international intermediairies, travel agencies, airline companies, hotel chains, are merely financial intermediaries, with no pretensions to cultural interpretation. One of the sumptuous brochures that various companies use to "sell" our country speaks of: "Tunisia, the sunny terrace of Africa", "An enchanting country with vast stretches of sandy beaches", "A fairy-tale oasis with a prestigious past", "A revelation of the oriental lifestyle". Every effort is made to draw the attention of the potential customer to the landscape and never to the people. And when Tunisian culture is mentioned it is always with reference to the past. Only the brochures and folders produced by the Tunisian Tourist Office in several languages, illustrated with coloured photographs, try to give our visitors a clear and authentic idea of our country.

The main thing is to emphasize the cultural side of tourism. Without running counter to the deep-seated motivations of the tourist who wants to relax and get away from things, we can try to give him what he wants while offering him the opportunity to make real contact with the local people. In this respect, experiments such as the Festival of Tabarqa deserve to be better known, looked at more closely, improved on or perhaps used as pilot experiments.

Lectures before and during his stay, first-class artistic events, round-table discussions, guided tours with better-calibre guides, exhibitions, documentaries—all this is no doubt very expensive, but it would make the tourist's visit a genuine encounter with the country, its culture and its people.

Generally speaking, a major mass information and education drive is necessary. Tourism could and should be seen as a powerful factor for understanding between nations and for international friendship. Certain measures would of course have to be taken, first of all among the people of the host country. They should be urged to regard the tourist as just another person, a guest but not necessarily a model to copy. With the great diversity of mankind there is no need for subservience or imitation.

But any kind of action, whether national or international, must be put into effect step by step. Tourism is an all-embracing term which covers many different things. However, we need to define the different types of tourist if our strategy is to have a practical impact. Moreover, tourist types vary from one cultural group to another. For example, they could be classified according to whether or not they know the language of the country, their financial means, their demands, and their socio-cultural level.

Certainly each different type has its own identifiable motivations. Once these have been determined, we can do a better job of trying to satisfy them. Certain other areas also need rethinking or even reorganizing from scratch: archaeological tourism, sports-oriented tourism, company, professional or trade union tourism associations.

In short, tourism needs to be diversified and multiplied, and given new life and spirit. Obviously this does not mean that the economic dimension should be overlooked or underplayed. We are even prepared to admit that it should have priority. Nonetheless, although all progress involves some social cost, this does not mean that we should passively let things take their course. Tourism could be turned to better advantage, often at little cost, by using a lot of intelligence and imagination.

It is wrong to see it either as the way out of our countries' economic difficulties or as a curse that will plunge our societies into disorder. It will not bring us ready-made modernity, although it speeds up the modernization process and may change its course. It need not destroy our values nor upset our beliefs. It simply hastens a trend that started several decades ago and has been forced by the overall policies practiced by our country.

If we succeed in reaping the maximum benefit from the set of circumstances that tourism brings in its wake, tourism may be used as the starting-point for an attempt to open a dialogue between nations. ■

The camera does not lie—or does it? Below, market-day scene in a Latin American town.

Photo © Wilhelm Braga, Paris

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Tourism passport to development?

by Emanuel de Kadt

IN the 1960s, tourism erupted on a grand scale. This was seen as offering a new opportunity for Third World countries to secure foreign exchange and stimulate economic growth. Their sunny climates, sandy beaches, and exotic cultures attracted a stream of vacationers, and resorts multiplied to meet the demand.

With the oil crisis and the recession of 1974-75, there was a pause in the growth of tourism. The end of the boom gave new urgency to existing concerns about whether tourism produced sufficient gains for developing countries to justify the investments required.

In addition to doubts about whether tourism yielded economic returns commensurate with its economic costs, there was a general questioning of some of the basic assumptions about the relation between development and economic growth. In the case of tourism, these doubts were reinforced by the belief that it brings larger adverse social and cultural effects than does development of other sectors.

Tourism is in one important respect different from other potential export activities: the ultimate consumer of the goods and services comes to the exporting country rather than having most goods and services delivered to him at home. An analysis of the economy of tourism therefore requires more careful attention to transport and marketing arrangements than in the case of most other exports.

And the very presence of foreigners in the exporting country is widely believed to generate significant social effects by demonstrating alien and, what is perhaps worse, unattainable life-styles and values. Furthermore, there is strictly speaking no such thing as a "tourism industry", analogous to industries as normally understood (construction, steel, agriculture).

Instead, tourists purchase goods and services from a variety of industries, with usually rather less than two-thirds of their expenditures being in the hotels and restaurants normally identified with the tourism sector.

Despite these differences, the problems special to tourism in developing countries still need to be set in the wider context of development, and the main questions addressed for tourism must fit in with the more general considerations of policymakers.

Dominant development concerns have changed over the past three decades. With much oversimplification, it may perhaps be said that an earlier simple faith in the merits of economic growth as such has given way to questions about the balance of that growth and the distribution of material benefits. Also, the very definition of development is being challenged, not only in its economic interpretation but in its social, political, and human dimensions as well.

Since 1970 a series of Unesco-sponsored Intergovernmental Conferences on Cultural Policies has stressed the importance of cultural development as an essential component of the general development of countries. Even so, the cultural and non-material aspects of development are still often neglected by those responsible for making the crucial policy decisions both nationally and internationally.

Growth alone may not suffice to overcome poverty within a reasonable time, and the distribution of the material benefits of development among the poorest countries and the poorest population groups within individual countries requires special attention. From arguments about the general effects of different development strategies on distribution of income, attention has come to rest on the staggering number of people, more than 900 million of them, living in absolute poverty.

More than ever before, the development community is searching for means that will enable the poor to provide for their basic needs through more productive work, more widely available social services, and increased participation in political decision-making. It needs to be considered whether the deliberate and large-scale development of tourism, conceived as a major net earner of foreign exchange, leads to results consistent with this newly identified goal of development.

"One-world" arguments question whether the pursuit by all countries of rapidly rising mass consumption will be feasible for much longer, given the consequent environmental deterioration and looming exhaustion of non-renewable natural resources. According to this view, further rises in the consumption of the rich will increasingly conflict with attempts to improve the living standards of the poor. The consumption patterns of international tourism are a particularly conspicuous example of the consumerism that is now being challenged in the industrialized world, out of reach of the poor countries' masses but within the reach of their elites.

The study of tourism and its effects has not, on the whole, taken a great deal of account of these broad issues. The dangers of this oversight are twofold. First, such tourism as does take place may not be planned so as to generate a maximum effect on development. Second, a pro- or anti-tourism stance might be taken up without real evidence to support it.

In the past, sociocultural issues and effects on arts and crafts have been at best considered as afterthoughts by tourism planners. They have not usually been equipped to deal with such questions even if there was a lone non-economist on the staff.

Virtually never assessed nor predicted beforehand are possible changes in the social structure of tourism development areas, likely modifications in class relations, and the more general potential consequences for the local area of attracting the interest of groups with economic or political power in the national or transnational sphere. These social changes, together with important material effects on employment and income, are of course, precisely the results that determine whether the process of tourism development is judged good or bad by the people affected.

I believe that it is worth attempting to analyze the impacts of tourism in the light of the development issues mentioned above, and that such an analysis will benefit from reference to the lessons on social and cultural impacts learned from other projects or other societies. ■

EMANUEL DE KADT, *Dutch sociologist, is a professorial fellow of the Institute of Development Studies at the University of Sussex (U.K.). This article is an abridged version of his introduction to* Tourism—Passport to Development?, *published by the Oxford University Press, 1979. This volume, which he edited, is based on the proceedings of a joint Unesco-World Bank seminar on the social and cultural impacts of tourism, held in Washington, D.C., in December 1976.*

The Water Decade (1981-1990)

1981 marks the start of the International Drinking Water Supply and Sanitation Decade, a worldwide co-operative effort to provide "clean water and adequate sanitation for all by the year 1990". The Decade has been declared by the United Nations General Assembly in response to a human tragedy of enormous proportions: more than half the men, women and children living today have no ready access to clean drinking water, and fewer still have facilities for sanitary waste disposal. Over the next ten years many groups will join forces to remedy this situation, which gravely affects human health and productivity and severely impedes development progress. Participants will include governments of both developing and industrialized countries, non-governmental industry, schools and colleges, the media and several United Nations agencies, including Unesco.

WATER is essential for life. It makes up nine-tenths of the human body's volume and two-thirds of its weight. This vital element covers about three-quarters of the earth's surface. But some 97.4 per cent is salt water in oceans, and 1.8 per cent is frozen in polar regions.

Fresh water, needed by human beings to sustain life, health and productive activities, constitutes only 0.8 per cent of the world's supply... and nobody knows just what portion of this amount is contaminated.

For half the world's people... and three-fifths of those living in developing countries... reasonable access to a safe and adequate drinking water supply is still more a wish than a reality.

Water is first and foremost a physiological necessity; without one or two litres of water daily, a person cannot survive. Some twenty to fifty litres a day of safe water, conveniently available for drinking, food preparation, and hygiene, are generally considered essential to sustenance of the minimum acceptable standard of living.

About twenty litres is the quantity of water usually used when the source, such as a well or a standpipe, is within a reasonable distance—up to about 200 metres—from the home. Installation of patio connections increases consumption, often to about fifty litres. With house connections and the simplest indoor plumbing, including a pour-flush toilet, 100 litres a day per person is normally the minimum level of consumption.

In developed countries and in the wealthier parts of cities in developing countries, average daily consumption is generally a multiple of this amount, ranging between 200 and 400 litres a day per person. In addition to basic human requirements (or larger residential consumption), water for industry and commerce, which typically accounts for 30-60 per cent of total consumption in an area, is also essential to sustenance of productive life and employment.

In many instances the present difficulties of procuring water are so great that a significant effect of improvement is a saving of time and energy. In a study of the effects of rural water supply projects on women in Kenya conducted by the Co-operative for American Relief Everywhere (CARE), for example, it was reported that nearly a fifth of rural households spent more than six hours each day collecting water. A third of the total work time of female heads of households was devoted to collecting water, while only 17 per cent was spent in preparing food and 21 per cent in economic activities, such as farming, herding, and marketing.

The problem is not confined to rural areas; in one of the poorer parts of Douala, Cameroon, that was covered in a recent project supported by the World Bank, for example, there were only two standpipes for 50,000 persons, and some residents walked as far as five kilometres to fetch water.

Another basic need is the sanitary disposal of human waste—that is, its disposal in such a way as to remove it from human contact. People generally seek to dispose of their excreta as cheaply and easily as possible, and in many rural areas where population density is low it is usually possible to do this without any large investment in waste-disposal facilities. In most urban areas, however, where the concentration of population is greater, a higher level of service is required for waste-disposal facilities in order to protect the health of the community and prevent degradation of the environment.

There is a wide range of facilities that can be used, from simple latrines to the type of waterborne sewerage known in most advanced countries. The need for sewers, as opposed to less expensive on-site disposal techniques, depends considerably on the permeability of the local soil, but, broadly speaking, it can be said that sewers in typical urban residential areas will not function when water consumption is less than 100 litres a day per person but will be essential when consumption reaches 200 litres a day per person. Techniques and systems of waste disposal, like water supply, must be planned with the needs of industry and commerce taken into account.

The best estimate, on the basis of 1975 country data collected by the World Health Organization (WHO) and of other information available to the World Bank, is that fewer than 500 million of the 2,000 million people in the developing countries—not including the People's Republic of China—had access to adequate supplies of safe water and adequate waste-disposal facilities.

The 1,500 million without these basic services consisted of some 1,100 million to 1,200 million in rural areas, or more than 80 per cent of the total rural population, and 300 million to 400 million, or between half and two thirds of the population, in the urban areas. The large majority of the former were dependent for water on shallow wells and natural surface water, of unreliable quality and often at substantial distances, and for waste disposal on the fields. The majority of the latter were in areas that had water-supply systems, but which were working only a few hours a day or delivering water of unsafe quality.

The WHO data indicate that the number of people with access to public water-supply systems increased dramatically between 1970 and 1975, from some 400 million to around 750 million, but population growth was also substantial during the same period, and the number of persons not served changed little. The information reported, moreover, refers only to access and does not indicate the condition or reliability of the water-supply system.

Levels of urban service in India, for example, are reported to have increased from 60 per cent in 1970 to 80 per cent in 1975; the number of people served by house connections or public standpipes increased from 66 million to 107 million, and the backlog of population not served was cut from 44 million to 27 million. At the same time, however, there was a rapid decline in the quality of service. In many of the largest cities, customers who had had eight to ten hours of service in 1970 had only two to three hours by 1975. Whenever inter-

The underground drinking-water reservoir at Montsouris, Paris, France.

Photo Doisneau © Rapho, *Science et Avenir*, Paris

Photo Dominique Roger, Unesco

Every day tens of millions of people in the developing countries consume vast amounts of time and energy carrying heavy loads of water over long distances. In many places, the trip may take as many as six hours and use up more than half the day's energy. Women and children bear the greatest burden. Instead of a journey to school, the day can begin for a child with a long, difficult walk to fetch water. The daily trek uses many hours women might otherwise spend on more productive educational or income-earning pursuits which could improve the quality of life for *all* in the community.

WHAT THE

Estimates on what it will cost to provide everyone with clean water and adequate sanitation by the year 1990 have varied widely.

At the United Nations Water Conference in Mar Del Plata, Argentina (1977), the price tag put on the Decade was $140,000 million. More recently, however, the World Bank has produced figures generally considered more realistic.

Costs are dramatically affected by choices of technology and scope and level of service.

The costliest option, based on house connections for water supply at $120-150 per head—and water-borne sewage (e.g., flush toilets) at $250 per head—is priced in excess of $600,000 million, or $60,000 million annually (in 1978 U.S. dollars). It assumes that:

- There will be 100 per cent coverage by 1990;
- Rural households will be served with standpipes or handpumps and individual latrines;
- Urban households will receive water taps of their own and will be connected to a sewerage system.

A *second option* is based on more use of less sophisticated, lower cost technologies such as handpumps and pit latrines, which are perfectly capable of providing an acceptable level of service in both urban and rural areas. It also takes into account a wider mix of service levels, and an 80 per cent level of coverage by the Decade's end. This figure, the one now cited most frequently, is $300,000 million, or $30,000 million annually.

DECADE WILL COST

On what basis are these total costs determined?

NEEDS :
1990 population of developing countries needing water supply and sanitation (in millions).

	Water	Sanitation
Urban	640	650
Rural	1,570	1,670
Total	2,210	2,320

COSTS :
Per Capita costs of alternative types of water supply and sanitation (1978 US$).

	Urban	Rural
Water Supply		
with house connection	$120	$150
with standpipe	40	40
with handpumps	—	25
Sanitation		
with sewerage	250	250
with septic tank	100	—
with latrine	30	20

SERVICE LEVELS:
Case 1* : (100 % coverage using 1980 WHO Target Urban Service Standard Distribution)

Urban	Water Supply	70 % house connection 30 % standpipe
	Sanitation	40 % sewerage 40 % septic tanks 20 % latrine and communal latrines
Rural	Water Supply	20 % house connection 40 % standpipe 40 % handpumps
	Sanitation	80 % sewerage 20 % latrines

Case 2* (80 % coverage with service standard as suggested)

Urban	Water Supply	40 % house connection 40 % standpipe
	Sanitation	25 % sewerage 15 % septic tanks 40 % latrine and communal latrines
Rural	Water Supply	10 % house connection 30 % standpipe 40 % handpumps
	Sanitation	10 % sewerage 70 % latrines

* Both sets of figures are only rough approximations. They are bound to rise further when costs of operation and maintenance are added to installation costs.

Source : World Bank, *Basic Needs : Water Supply and Waste Disposal,* Dec. 10. 1979, pp. 6-7.

ruptions in service occur, the safety of the water is also in doubt. These are among the reasons why the global estimate given of the number of those who receive adequate service falls below the number officially reported to have access.

At least two thirds of those without adequate water service are to be found in South and Southeast Asia. The middle-income developing countries, particularly in Latin America and the Mediterranean region, where there is a high proportion of house connections, have achieved higher standards of service than other regions.

The figures reported for waste-disposal facilities are somewhat less reliable than those for water and may give an unduly optimistic picture. They nevertheless indicate only a very small increase between 1970 and 1975 in the percentage of the population served by adequate waste-disposal facilities, from 25 per cent to 27 per cent, and, with growth of population, a substantial increase in the absolute number of those not served.

These figures are based on very modest definitions of access to waste-disposal facilities. The usual practice is to regard the existence of a latrine at a home as evidence that satisfactory facilities exist. In congested areas, however, most latrines do not meet minimal public health requirements. Often they are not designed to be accessible to children. Poorly designed and constructed pit privies, furthermore, frequently contaminate nearby shallow wells.

The principal consequence of highly deficient water supply and waste-disposal is a heavy burden of disease, with consequent suffering and hardship, stunted human growth and development, and diminished productivity.

The most reliable indicator of the overall state of health in a country is life expectancy. At the end of the 1940s life expectancy in the developing countries was estimated to be about thirty-eight years. By now it is believed to have increased by about 40 per cent, to some fifty-three years, while in the more highly developed countries life expectancy is now about seventy to seventy-five years.

For subpopulations characterized by extreme poverty, malnutrition, inadequate water supply, insanitary disposal of wastes, and lack of health services, however, there has probably been no improvement in health. The low life expectancy at birth is largely a reflection of extraordinarily high mortality rates of infants and young children. If deaths among children under the age of five years could be reduced to rates similar to those in the industrially developed countries, life expectancies in the developing countries would be only three to five years less than those in Western Europe and North America.

Water and excreta are prominent factors in the transmission of most of the more serious diseases of the developing world. Gastrointestinal infections are the leading causes of both death and disability in most developing countries. In many areas diseases related to deficiencies in water supply and waste disposal are contributory causes of most infant deaths and account for a large proportion of adult sickness.

Studies made in recent years show clearly, however, that these problems can seldom be overcome by a single measure or remedy. A combined approach is usually required that includes ample water supplies, hygienic disposal of excreta, and education in water-use practices and household hygiene to change traditional beliefs and habits; improved garbage collection is sometimes also essential, particularly in densely populated, low-income areas. In order to be fully effective, improvements in water supply and waste disposal must extend throughout the community, so that risks of infection in public areas and neighbouring houses are also reduced.

The need to increase the quantity of water available is often more important than the need to improve its quality, but occasionally this point is misunderstood and exaggerated. In principle, of course, water that is adequate for personal and household cleansing does not need to meet the safety standards of water for drinking and cooking. The mistaken inference is sometimes drawn from this fact that the water-supply problem can be adequately overcome by teaching people to boil the small quantities of water required for drinking.

The difficulties of this solution are threefold. First, it is much more easily said than done; it is hard to keep water segregated in containers, and thirsty children in particular tend to drink whatever water is convenient. Second, it is a very expensive solution; it can be calculated that the kerosene alone required to boil each day the quantity of water that a person requires for drinking, cooking, and minimal personal hygiene would cost at least $20 a year. Third, it neglects the extent of the problem.

Water and world health

UNICEF estimates that about 15 million children below the age of 5 die in the developing countries every year. The absence of safe water and sanitation plays a major part in this tragedy. If everyone had access to safe drinking water and sanitation, infant mortality could be cut by as much as 50 per cent world-wide.

According to the World Health Organization (WHO), approximately 80 per cent of all sickness and disease can be attributed to inadequate water or sanitation. For example :

• Diarrhoea directly kills six million children in developing countries every year, and contributes to the death of up to 18 million people.

• Trachoma affects some 500 million people at any given time, often causing blindness.

• Parasitic worms infect nearly one half of the entire population of the developing countries, often with very serious consequences. For example, 200 million people in 70 countries suffer the debilitating effects of schistosomiasis.

• Malaria yearly kills one million children below the age of two in Africa, south of the Sahara, alone.

Diseases related to water and sanitation (or lack of them) may be grouped into five general categories:

• **Water-borne diseases** spread by drinking or washing hands, food or utensils in contaminated water, which acts as a passive vehicle for the infecting agent.

• **Water-washed diseases** spread by poor personal hygiene and insufficient water for washing. Lack of proper facilities for human waste disposal is another contributing factor.

• **Water-based diseases** transmitted by a vector which spends a part of its life cycle in

More than four billion people live on our water-rich planet. But over a billion must drink dirty water. Nearly two billion have no toilet. The World Water and Sanitation Decade aims to ensure that by 1990 everyone has enough clean water and adequate sanitation. The cost: US$30 billion a year for ten years—five times more than present global spending.

water. Contact with water thus infected conveys the disease-causing parasite through the skin or mouth.

• **Diseases with water-related vectors** contracted through infection-carrying insects which breed in water and bite near it, especially when it is stagnant.

• **Fecal disposal diseases** caused by organisms that breed in excreta when sanitation is defective.

These diseases exact a high toll in human life and suffering.

Photo Dominique Roger, Unesco

The boxes on pages 13-17 are based on documentation produced by the Inter-agency Steering Committee for the International Drinking Water Supply and Sanitation Decade, of which Unesco is a member, and on Unesco sources. The main article has been largely adapted from Water Supply and Waste Disposal *(September 1980) one of a series of booklets prepared by the World Bank on the subject of basic needs.*

In practice, provision of good-standard water in rural areas usually requires only that springs and wells be properly located, constructed, operated, and maintained, while in urban areas the marginal cost of treating water to make it safe for drinking, cooking, and personal hygiene is typically very small—far less than the $20 a person that would be required for boiling.

There is considerable evidence that the economic burden of disease and ill health that is in large part the result of deficiencies in water supply and waste-disposal is very great in developing countries, particularly for the poor. Various studies and estimates indicate that in these countries disease typically takes up about a tenth of the average person's potentially productive time and, in addition, affects risk-taking and initiative adversely, disrupts the education and nurture of children, stunts physical development, and causes vast suffering and hardship. The gastrointestinal diseases reduce absorption of nutrients, in acute cases by as much as 30 per cent. The malnutrition occasioned by gastrointestinal disease compromises the defences of the body against infections and is therefore largely responsible for the diarrhoea-measles-pneumonia complex that kills a fifth or more of the children born in many developing countries.

Meeting the goal of the International Drinking Water Supply and Sanitation Decade will be a gigantic task. If everyone in the world is to have clean water and adequate sanitation by 1990, new water supply and sanitation facilities will have to be provided for half a million people every day during the ten-year period.

The United Nations system has evolved strategies for the Decade. These emphasize promotion and support of national Decade programmes through technical co-operation; building up national capacities and generating dynamic self-sustaining programmes, promoting technical co-operation among developing countries; and encouraging the flow of external funds into national Decade activities. Several organizations in the United Nations system (the UN, ILO, FAO, Unesco, the World Bank, UNICEF and UNDP) have formed a "Steering Committee for Co-operative Action" to co-ordinate their work with Governments in planning and implementing water supply and sanitation activities.

All countries—whether well advanced in the development of water supply and sanitation or badly in need of better facilities—will be involved.

As a means of working towards Decade goals, Governments are developing "National Action Plans". A number of countries have set up National Action Committees to co-ordinate and support Decade activities.

Besides improving their own national water and sanitation services the industrialized countries are expected to provide more resources for projects related to the Decade within their bilateral programmes of assistance to developing countries... to harmonize international assistance from various governmental and other organizations... and to increase their contributions to multilateral Decade-related programmes.

The primary commitment is coming from the developing countries themselves.

It is their Governments which can accord water and sanitation adequate priority... integrate schemes with national social and economic plans for other sectors... allocate required financial, technical and human resources. They can organize the necessary machinery and infrastructure at national, regional and local levels, provide bodies to co-ordinate activities, and devise well-prepared projects able to attract external aid.

And it is their people, so desperately in need of improved facilities, who can assume major responsibility for ensuring that they are provided and maintained. ■

Photo Seitz, UNICEF

MALAWI: A community approach

COMMUNITY participation is the cornerstone of national drinking water supply policy in Malawi, an East African country with a population of just over 5 million.

Local involvement at all stages is largely responsible for the remarkable progress made toward the Government's high-priority goal of providing everyone with a safe, potable water supply no further than 400 metres away by the year 1990. The target is well within reach: clean water is already available to at least 70 per cent of the country's urban dwellers and 35 per cent of the rural inhabitants (who make up 90 per cent of the total population).

Typical of Malawi's success with this approach is the Mulanje West project in the southern part of the country where 75,000 people living in an area of 257 square kilometres are served by 460 village taps.

The problem was that the traditional shallow wells in this area—and even the river several miles away—were running dry. The water cycle had been undermined by cutting of trees to clear land for cultivation thus reducing the land's ability to retain water.

Villagers appealed to the Government's Ministry of Community and Social Welfare for

Unesco and the International Decade

Water resources assessment and management. Many Unesco activities within the framework of the International Hydrological Programme (IHP) relate to the goals of the Decade. Several IHP themes relating to water resources assessment, water quality protection and allocation of water resources can provide inputs to the Decade. In 1981 Unesco is to develop three major regional projects (in Latin America, the Arab States and Africa) on the rational management of water resources in rural areas, the purpose of which is to determine the most appropriate ways of developing and conserving water resources to meet the economic and social needs of rural communities.

Water-related education and training. Within the water-related educational programmes and training courses sponsored by Unesco more emphasis will be placed on drinking water supply and sanitation. One example is the regional course being organized at Arusha, Tanzania, for the training of personnel in the techniques and methods of prospecting for water in the hard-rock areas of Africa. The IHP National Committees established in some 110 countries will be encouraged to promote and participate in the Decade.

Education in hygiene and water use. Education concerning hygiene and patterns of water use is an essential element in the overall strategy of the Decade. Carefully designed programmes that teach people about the links between clean water, hygiene and health will have to be developed, a task for which many countries will need expert guidance. Unesco's contribution will be concerned with the planning and implementation of a comprehensive programme aimed at massive health education at the community level focussed on the issue of clean water and sanitation.

Public motivation and participation. In addition to the development of grassroots health education projects, Unesco will have a responsibility for national and provincial public promotional programmes in support of the Decade. Unesco will also be able to contribute through its activities in the fields of environmental education, engineering education (civil and sanitary engineers) and community motivation and participation and integrated rural development.

Information systems and services. Unesco's General Information Programme is aimed at facilitating access to scientific and technological information and its effective use, and contributing to the development of information infrastructures and the theoretical and practical training of information personnel and users. This Programme will be able to provide technical guidance for the development of the Programme on Exchange and Transfer of Information (POETRI) which is to constitute the information support of the Decade.

assistance. This was done through their District Development Committee, consisting of members of parliament, traditional authorities and local leaders of the ruling Malawi Congress Party. The Ministry then drew up a design for the system. Steel pipes would take water from a pool in the fast-flowing Likhobula River to a sediment tank where sand and flood debris would be screened. The water would then be conducted by gravity through an asbestos cement main pipeline, to sixteen storage tanks situated in the hills just above the villages. Plastic pipes would convey it to individual village taps, providing enough for each person to use some 23 litres a day.

In October 1972, the villagers began to plan for their system. They staked out an area in their fields for the main pipeline so that no crops would be sown there. They began digging and pipe-laying the following February and March, after the rains had made the ground soft.

Village leaders established a committee to organize construction. All villages which would use the scheme were to share the labour. As 30 kilometres of trench were needed for the asbestos cement pipe (supplied by UNICEF) the committee divided the length into five sections, assigning several villages to work on each. About two hundred people—men, women and even children—worked on each of the sections every day until a trench 1.20 m deep and 80 cm wide was completed. Enthusiasm was so great that, often, people who had finished their allotted work for the day stayed on to do even more.

Project assistants, chosen from the community, were given three weeks' training to enable them to cope with pipe-laying and other more difficult tasks.

Next came installation of branch lines which villagers completed by laying piping (also supplied by UNICEF) in 210 kilometres of trenches they had dug, 80 cm deep and the width of a hoe. The operation was completed when they chose sites for their village taps and built concrete aprons and drains for them.

In areas where new gravity water supply systems are installed, villagers are visibly delighted and celebrate the opening of each tap with singing and dancing. Health has improved measurably in such areas, as was evident in 1973-74 when the country was hit with a cholera epidemic. While 20 persons in an average village of 350 were affected, villages with tap water had no more than one case, and in each instance that person had visited another town.

With self-help labour, gravity systems are constructed at amazingly low costs, which rarely exceed $10.00 per capita, even when the training component is added. They are designed to last 100 years and operating costs are nil.

Malawi's villagers also supply labour for protected shallow wells in those areas where this technology is the best solution to water supply. Village committees supply bricks and sand and use their ox-carts to transport materials. The Government provides cement, a concrete slab and parts for pump assemby. These wells cost less than $1.00 per person served.

It has been found, however, that they are easily contaminated if not protected. To deal with this problem, the Government has developed a simple pump, made from local materials, which is bolted to a concrete lid, encloses the entire well, and can be operated even by children. Its cost is $25-$30 as compared to $700-$1,000 for deep well pumps.

In Malawi's urban areas, Government policy mandates that people pay for their water. Fees are imposed because it is recognized that people in towns tend to have full-time jobs, which makes it difficult to organize digging crews. In any case, it would be neither desirable nor possible to limit benefits to those who participate in construction. Charging for water in towns also serves to prevent waste, and is a means of discouraging urban migration and the accompanying problems of slums, high unemployment and over-extension of facilities experienced by many developing countries.

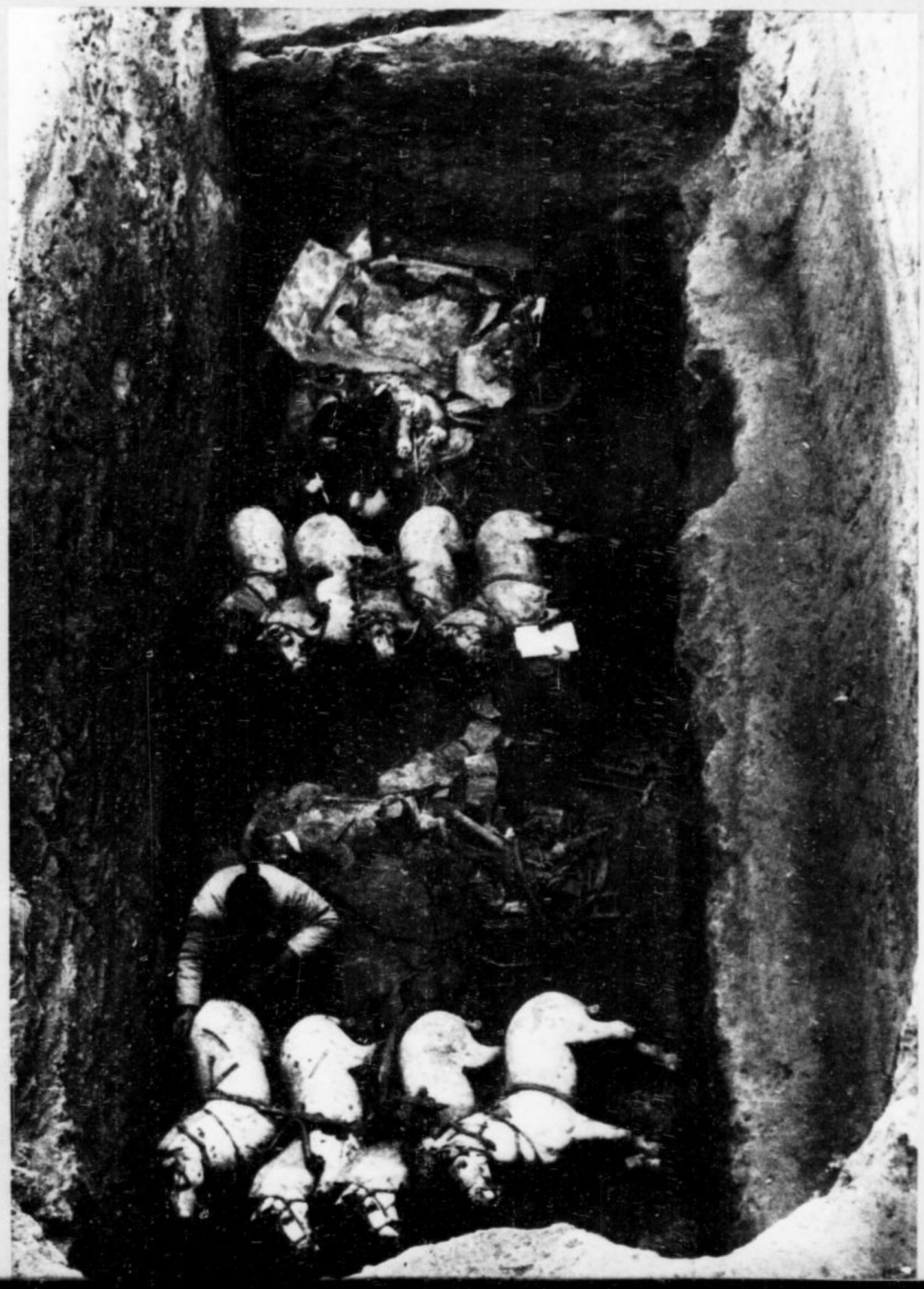
The Government's commitment, external support and the vital contributions of the local people make it almost certain that Malawi will meet the Decade's goal of clean water for all by 1990. ■

Photo William Campbell, UNICEF

In the Sudan, members of a rural community at work installing a safe new water supply pipeline. If the Decade is to achieve its objective of clean water and adequate sanitation for all by 1990, maximum participation by those who will benefit from the new systems is essential.

Emperor Qin's bronze chariots

The* Unesco Courier *presents on this double page recently taken photos of the latest remarkable finds unearthed near the tomb of Emperor Qin Shi Huang in China's Shensi province. The Emperor is remembered as the builder of the Great Wall and as the first ruler (from 221 to 210 BC) of a unified China.



In 1974, villagers digging a well near the mound which covers the Emperor's tomb (above) discovered a huge vault which turned out to contain thousands of life-size terra-cotta soldiers. The individuality of each figure was so striking as to suggest that the soldiers were true-to-life portraits of members of the imperial bodyguard. In our December 1979 issue we published a progress

2

report on the excavations and on the preservation of this "clay army".
Since then, two big bronze figures, two bronze chariots and eight bronze horses have been unearthed to the west of Qin Shi Huang's tomb. The well-preserved relics are the biggest of their kind ever discovered in China.
Our photos, by Chinese photographer Yang Limen, show: (1) Archaeologists working on the bronze treasures. Each of the two chariots is drawn by four horses. The horses are of the same casting but the chariots are different in form and each driver has a different posture. (2) One of the chariots with its driver and horses. The bronze figure is 90 cm high; each horse is 70 cm high and about one metre long; the chariot is over one metre wide. (3) A lifelike driver grips the reins. His dress indicates that he belongs to the same élite group as one of the terra-cotta figures found in the underground vault in 1974. The high-ranking drivers and their well-appointed carriages provide unique evidence of the life of Qin dynasty officials.

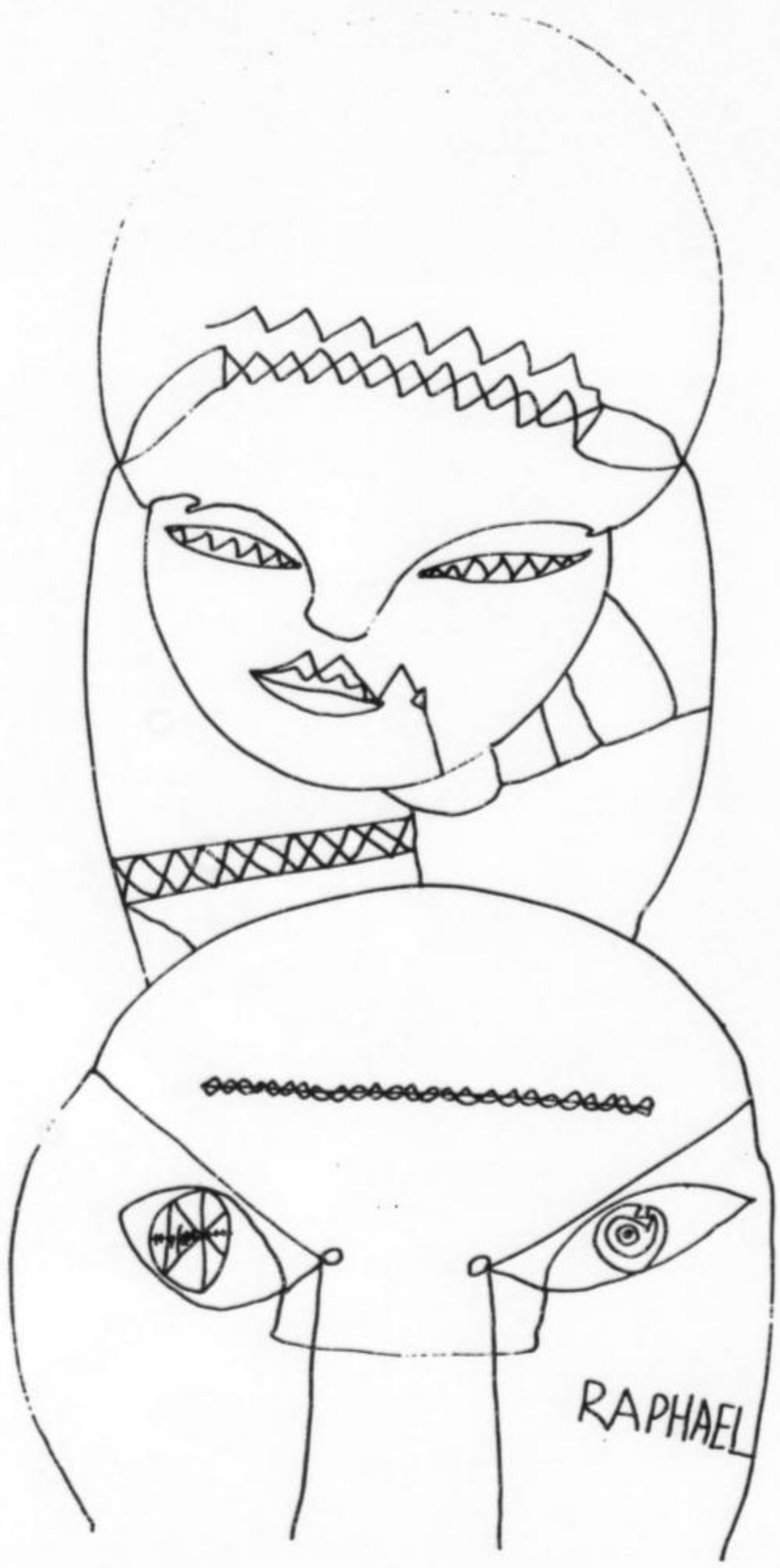
Photos Yang Limen © New China Pictures, Peking

3

Brazil's Museum of the Unconscious

A bold experiment in psychotherapy and art

by Fernanda de Camargo e Almeida



Raphael was an academic painter before he became an inmate of Brazil's National Psychiatric Centre in Rio de Janeiro. For twelve years he was inactive as an artist. Then one day someone gave him paper, pencils and tubes of paint, and he began to paint again. "Since he has forgotten the rules of academic painting", writes the Brazilian critic Sergio Milliet, "he gives free rein to his imagination. He expresses his true self. His paintings may be compared with what is most beautiful and sensitive in the works of the moderns, the Matisses, the Picassos, the Dufys...."

Photo Humberto Franceschi © Museum of Images of the Unconscious, Rio de Janeiro

BRAZIL's Museum of Images of the Unconscious occupies the ground floor of one of the pavilions of the National Psychiatric Centre, in the northern part of Rio de Janeiro. Created to house the artistic works of patients who frequent the Centre's occupational therapy workshops, the Museum contains some 90,000 drawings, paintings and models in plaster, ceramics and other materials, selected over the past twenty-four years by Dr. Nise da Silveira, the psychiatrist responsible for the occupational therapy activities that have long been a feature of the work of the Centre.

The Museum of the Unconscious differs from other museums not only in the nature of the works of art it houses, but also in its entire organizational set-up. Its collections are constantly being enriched by the daily arrival of new works of art from the workshops of the Psychiatric Centre which are in operation every morning from Monday to Friday throughout the year.

The drawing and painting workshop is a vast, well-lit room situated at one end of the museum. In addition to working tables it is equipped with a piano and an organ; quite often someone plays or sings, thus associating image with sound. Modelling is usually carried out in another room or in the garden.

In this excellent atmosphere the patients work with the aid of occupational therapists, coming frequently into contact with artists and personnel from the Carl Jung Study Group (the Museum's scientific research section), yet never losing their creative freedom.

After leaving the workshops, the works are listed and catalogued and become the property of the Museum. The cataloguing is carried out in accordance with the ARAS (Archive for Research on Archetypical Symbolism) system adopted by the Jung Centre of Zurich, thus forming a complete dossier on each patient. This enables psychiatrists and research workers to follow each case and provides a source of material for studies on the unconscious. The works are stored until the opportunity arises to exhibit them, but they are always available for reference and examination.

Up until 1973, the Museum suffered from a number of museological and museographical deficiencies. Two museologists from the consultation unit of the Association of Members of the International Council of Museums (AM-ICOM) were invited by Dr. Nise da Silveira to make a thorough study of the improvements which could be carried out without jeopardizing the Museum's basic structure.

They came to the conclusion that it would be necessary to enlarge the temporary exhibition rooms, create a permanent exhibition room which would adjoin the gallery, and reappraise the display materials such as supports, pedestals and lighting.

All this had to be done without losing sight of the fact that the patient who frequents the workshop also frequents the Museum, both of which are indispensable meeting points at which he or she can make contact with the outside world. That is why certain display methods cannot be adopted and why modifications which might confuse the patients cannot suddenly be introduced.

It was decided to proceed slowly, using methods that would not shock the patients by their novelty. The rooms were therefore

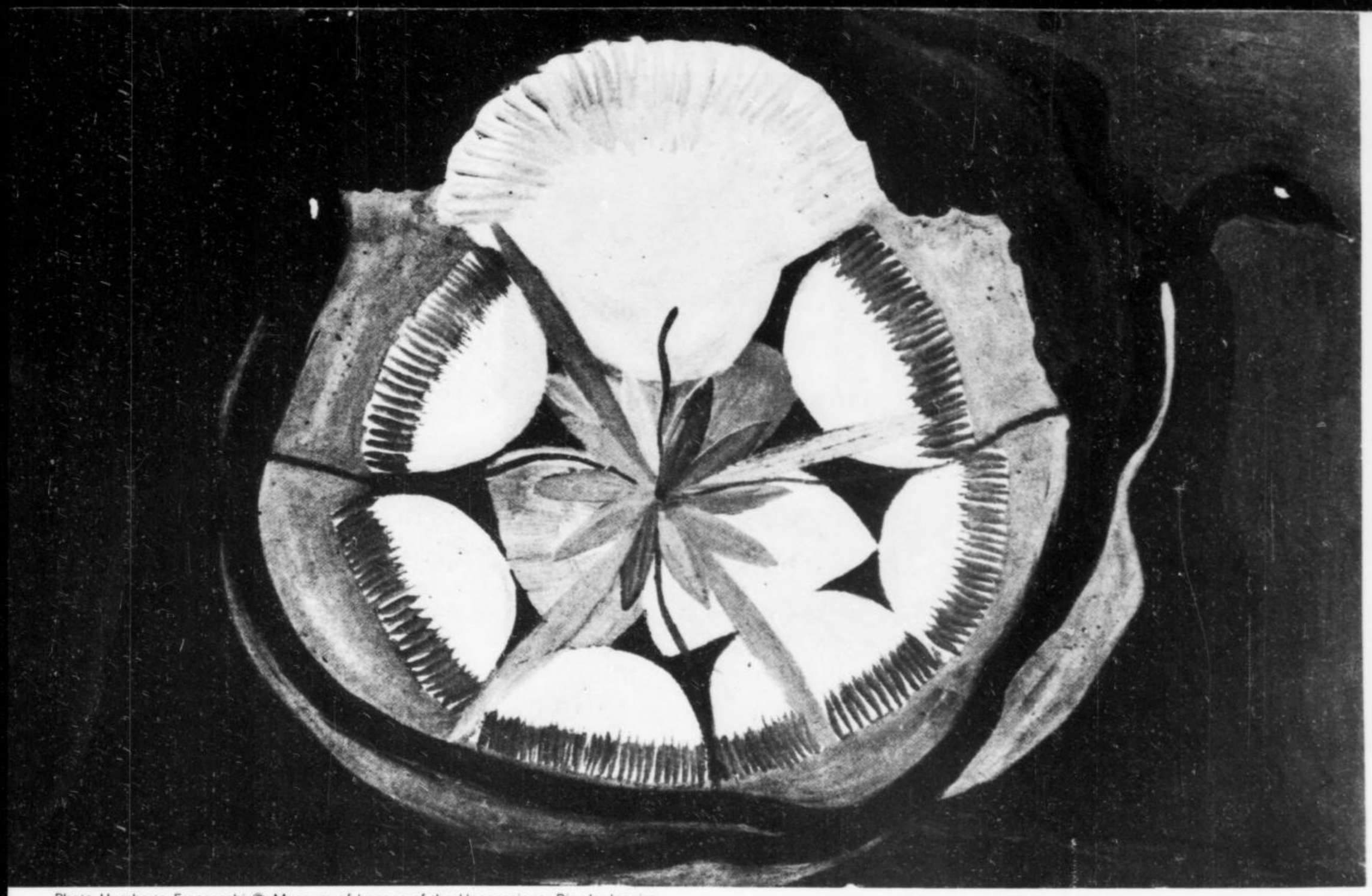
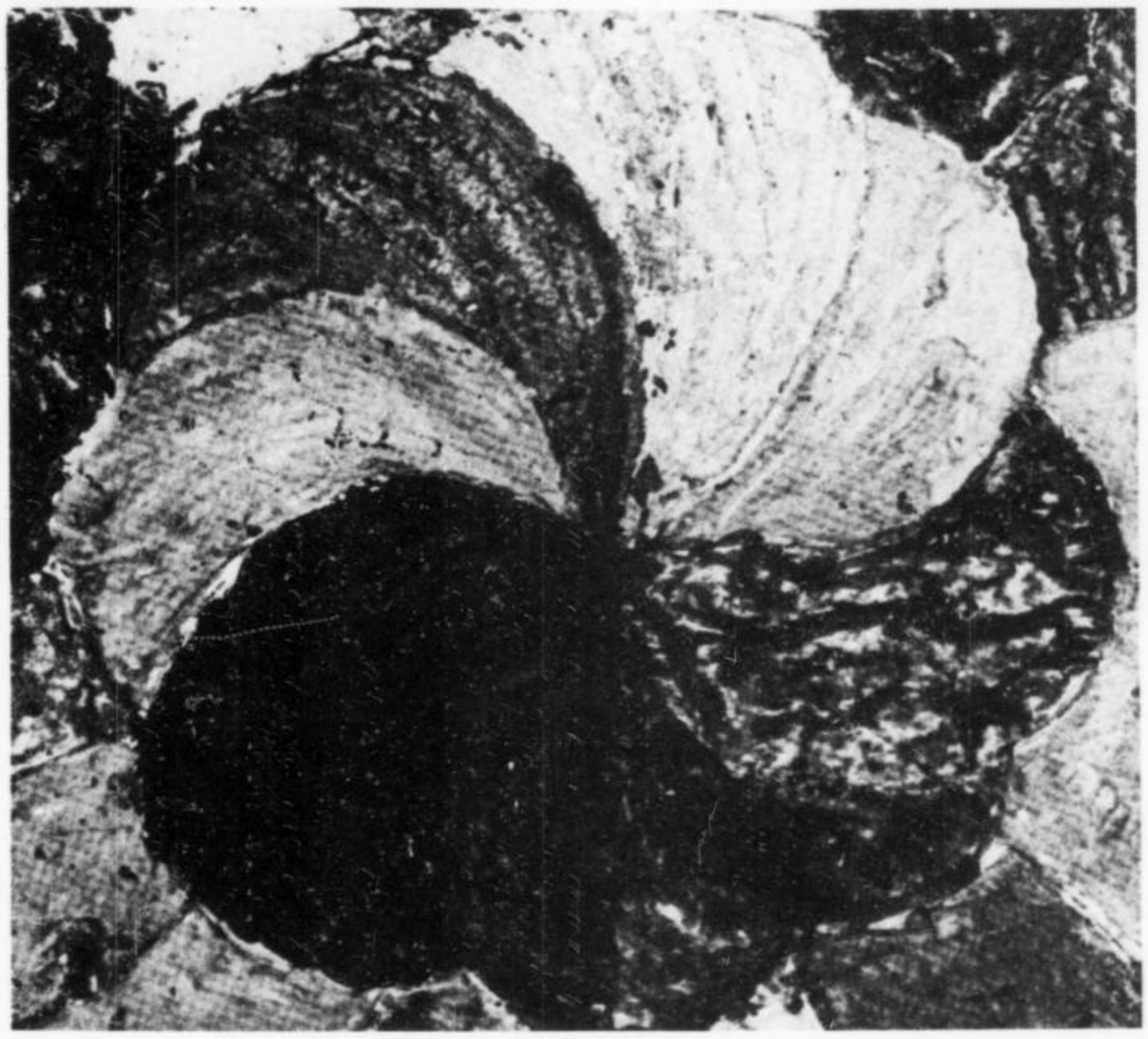


Photo Humberto Franceschi © Museum of Images of the Unconscious, Rio de Janeiro

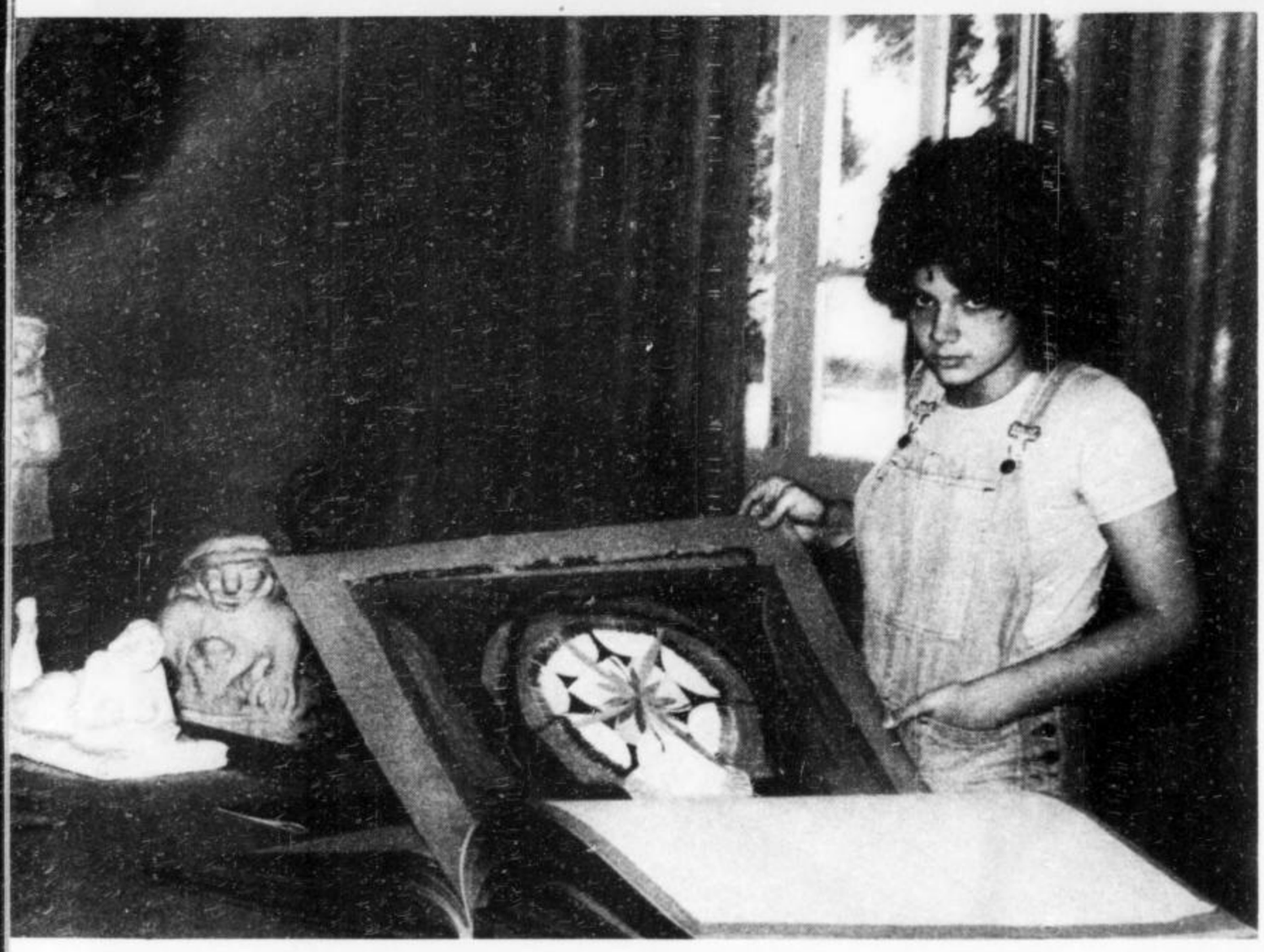
Photo Luis Alberto Peregrino © Museum of Images of the Unconscious. Rio de Janeiro



Above, *The Planetarium of God,* an oil painting by Carlos. Produced in 1948, it seems to depict a vision the artist had had nine years before. Brazilian critic Mario Pedrosa has described how, one September morning in 1939, Carlos "saw the sun's reflection in the little mirror in his room.... And there appeared before him a cosmic vision which he described as 'the planetary of God'. He shouted for his family to come, for he wanted everyone to see the wonderful sight before his eyes. On the same day, he was committed to an institution." Left, *Mandala,* by Fernando Diniz, who has painted some of the most exuberant still-lifes in the history of Brazilian art. The work won an award when it was exhibited in Paris in 1957. The Swiss psychologist and psychoanalyst Carl Gustav Jung believed that the mentally afflicted intuitively produce depictions of mandalas (magic circles used in some cosmogonies to represent the universe), these archetypes of the unchanging basis of human thought occurring in different historical periods, races and civilizations.

modified during the daytime in full view of the visitors from the workshops. The hospital staff helped to cover the walls with hemp cloth, as in the other rooms, and the patients themselves helped to arrange the plants and the lighting. In addition to the wooden boxes already in use as supports, bricks covered in hemp cloth and upturned glass bowls were used as supports for small ceramic objects. Considerable attention was paid to this question of supports because the use of an unfamiliar material might be considered by the artist as an interference in his work and create in him a feeling of rejection.

The Museum's technical personnel posed another problem—how could people unaccustomed to contact with sick people be introduced into this museum with its own very special characteristics without serious misunderstandings arising? It was not the problem of adaptation that worried us or led us to envisage the need to take extra precautions. After all, perfectly satisfactory relations existed between the patients and the members of the study group from the Carl Jung Research Centre as well as between



Intrigued, like many visitors to the museum, by the symbolism of the archetypes (photo previous page), this young Brazilian girl is studying a large album of coloured drawings. Ranged nearby are sculptures on mythological themes. Below, an upturned glass bowl serves as a support for a ceramic earth divinity ringed by snakes.

Photos © Museum of Images of the Unconscious, Rio de Janeiro

the patients and visitors to the Museum. The fear was that if museologists and other professional museum personnel were to introduce orthodox museological standards they might destroy the special character and authenticity of the Museum of the Unconscious. For it is clear that, however high their technical level, certain professional standards and practices cannot be applied in this Museum.

Encouraged by the close contacts we had always had with the Museum staff and the interest they had always shown in helping to find solutions to problems, we decided to attempt an experiment. Instead of training museologists to meet the needs of the Museum and its setting, we decided to try to train the personnel actually working in the Museum and workshops, that is, the employees of the National Psychiatric Centre.

The first step was to give them elementary instruction on the cultural heritage, on museology and museography. They were taken to visit other museums and asked to give their impressions, to make comparisons and to undertake projects and research tasks. Intensive training groups were established and given increasingly specific objectives to attain.

Today we continue to collaborate with museologist Lourdes do Rego Novaes and with a training unit of AM-ICOM and a consultation unit; whilst the latter is engaged in presenting new exhibitions and improving the Museum, the training unit is working out a training programme adapted to present needs which gives a sound general foundation to the trainees.

The demand for these courses has been so heavy that we have had to admit to them people from other sections of the hospital who work in related areas. Candidates for the courses include doctors, psychiatrists, psychologists, educators, occupational therapists, administrative staff, nurses and technical personnel. The rate of attendance has been between 97 and 98 per cent and the students have completed all the work assigned to them.

Each student has been brought to a level at which he can envisage the themes dealt with from the viewpoint of his own speciality. At first it was thought that once instruction on general principles had been completed the group would have to be divided into specialized sections. But this proved not to be the case since all the students wanted to gain more knowledge in all fields. Only later, therefore, will it be possible to organize smaller groups which will receive more specialized training.

Since 1974, when the Museum entered this new phase, some thirty temporary exhibitions have been organized. These exhibitions are usually held in the temporary exhibition room in which the Carl Jung Study Group meets once a week. The group studies a theme which is also that of the exhibition, such as "Affectivity-Contact", "Metamorphoses of the Feminine Principle", etc. The presentation of these exhibitions is very simple; the labels on the exhibits bear only iconographical details, the date and the artist's name. No mention is made of the patient's psychiatric or psychological condition. Thus, these exhibitions can be visited by everyone. The theme of the "Mother Goddess" constantly recurs in the works of patients and the Museum

Photo © Museum of Images of the Unconscious, Rio de Janeiro

has made a special selection of the most interesting representations of the mother goddess figure. The exhibitions include an ever increasing number of models and sculptures including works by the students following the museological courses.

Another question, that of the social, cultural and educational activities of the museum, is currently being studied. Clearly the Museum's first objective, apart from the preservation of the works of art, must be to fulfil a social function within its own community, that is, among those who are in direct contact with and participate in its activities. The National Psychiatric Centre, which is the Museum's immediate setting, is therefore the object of the particular attention of the Museum. Next comes the old industrial quarter in the northern part of Rio de Janeiro which faces the special problems of a working class area. The people still have fears about living close to one of the country's principal psychiatric centres. As elsewhere in the world, the proximity of a big hospital for mentally sick people arouses fears of patients escaping and attacking people.

The Museum is tackling this problem not only by attempting to explain its purpose, gathering information locally and integrating itself into the community, but also by working with local people, opening up to them new horizons and making them understand what the Psychiatric Centre really is, what mental illness and its treatment is all about. Through the city the Museum hopes to reach out to the entire country.

Already visitors come to the Museum from other parts of the city, from the countryside and from abroad, and all show a lively interest. The Museum is open every day. Small groups are asked to notify the caretaker in advance but large groups have to obtain special permission to make a visit; the well-being of the patients cannot be forgotten. The patients themselves walk freely in the galleries, often accompanied by cats or dogs. Dr. Nise da Silveira calls them "my guests", and in her studies and working techniques the animals play a "co-therapeutic" role, indispensable to the equilibrium of the patients. The excellent results achieved are confirmed by daily life in the Museum and the works held in its archives. The presence of animals in a museum of painting and sculpture may seem incongruous, but it is one of the features which enable us to grasp the special techniques used at the Museum of the Unconscious. ■

FERNANDA DE CAMARGO E ALMEIDA, *Brazilian museologist and archaeologist, has responsibility for museology and staff training in museology at the Museum of Images of the Unconscious in Rio de Janeiro. A longer version of this article has also appeared in Unesco's international quarterly* Museum *(Vol. XXVIII, No. 1).*

Below, the Museum's central gallery. Beyond it is the painting workshop. The patients' cats and dogs wander freely through the exhibition rooms, and their presence seems so beneficial that the therapists look upon them almost as "colleagues".

MUSEU DE IMAGENS DO INCONSCIENTE

High-speed language learning

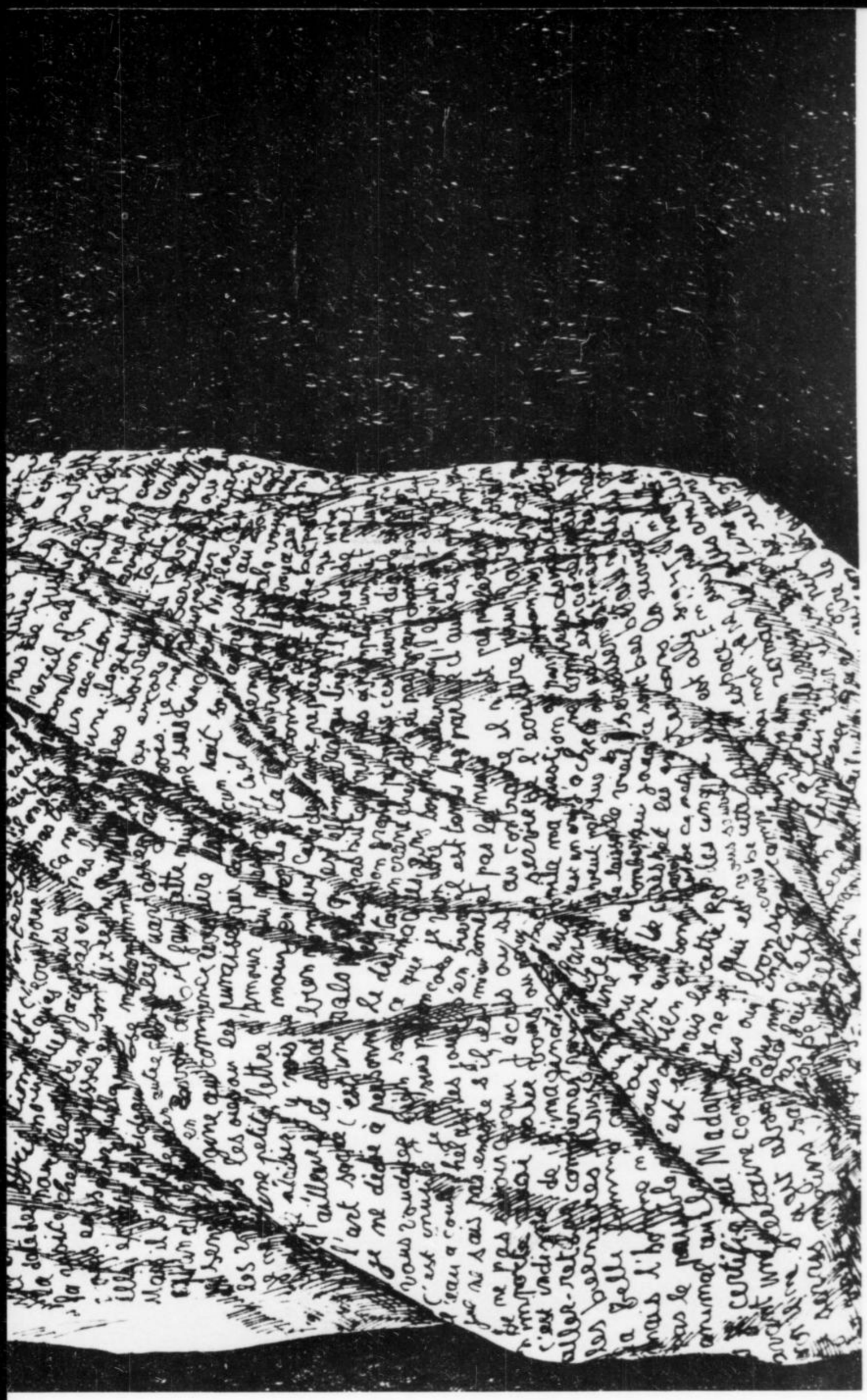
How to study while you 'sleep'

by Mira Vaisburd

TO master a foreign language well enough for use as a means of communication is extremely difficult. Nature and society provide children with the conditions necessary for learning their mother tongue, but it is impossible to reproduce these conditions in adult life.

People are not, as a rule, faced with the need to use a foreign language until they have completed their education and have embarked on their careers. While they are still studying, it is a problem that appears remote and not very real. Study of a foreign language is thus most often undertaken out of necessity.

Foreign languages are usually included in secondary and higher education as part of the general curriculum and the general timetable, with no allowance whatsoever being made for the special features of



Lithography Roland Topor © Topor-Olivetti

language learning. The result is that the length of the language courses and the infrequent contact between teachers and students create conditions that are completely contrary to the general principles governing the acquisition of language skills.

In secondary schools, it is thus only possible to learn the rudiments of a foreign language, making further study necessary.

Studying a foreign language involves in particular: (a) memorizing a very large number of speech units, a large proportion of which are difficult to classify; (b) mastering these units thoroughly enough to be able to use them automatically; and (c) learning how to use these units in accordance with the rules of the language, and using them in a suitable way from the point of view of the needs of communication.

Accelerated language-teaching involves a considerable concentration of lesson time, with at least four hours of lessons every day. The purpose of this is to prevent students from forgetting—the chief danger when learning a foreign language.

There are two main ways of accelerating the teaching of foreign languages. The first is to ensure that the content, methods, organization and equipment used correspond exactly with the objectives being pursued. The second way is to exploit the students' character to the full by introducing personalized teaching. These two approaches are closely related, but each has its own peculiarities and sphere of application, the first being within the framework of traditional education, the second being the use of new methods with which we are concerned here.

Experiments have been made with teaching during natural sleep, "hypnopaedia", or in conditions of rhythmic sleep induced by the use of a special apparatus, "rhythmopaedia", and with the imparting of information to persons in a state of relaxation, "relaxopaedia".

The method used most widely during the past few years has been "suggestopaedia", which exploits the functional reserves of the brain by the use of suggestion, i.e. by the use of composite suggestive action on the student's personality.

Research on these methods is based on observation of the fact that memorization is quicker and easier when active control is relaxed and when the role of the unconscious processes in higher nervous activity is enhanced.

This research has shown that teaching by hypnopaedic methods is two to two-and-a-half times more effective than ordinary methods. The process of memorization comprises ordinary classroom lessons with a teacher (forty-five minutes); listening to a reading of the study programme and repeating it out loud in bed, before going to sleep (fifteen minutes); hearing the programme, played more and more softly, for fifty-five minutes after falling asleep; hearing it again, starting softly and growing increasingly louder, for twenty to thirty minutes before waking up. The whole hypnopaedic teaching programme was composed of thirty-nine teaching units. As a result of this course, 2,500 words, combinations of words and basic models were assimilated.

A variant of hypnopaedia is rhythmopaedia. A state of sleep is induced in the student with the aid of an electrohypnosis apparatus which produces a monotonous, rhythmic effect on the nervous system. The student is then fed with information. It is possible, by varying the frequency of the light and sound impulses, to maintain in the student the depth and intensity of hypnotic inhibition most suitable for the imparting of new information.

Teaching during sleep has numerous advocates, but even more numerous opponents. Doubts are expressed about the effects that teaching in these conditions may have. But since hypnopaedia is used in conjunction with other teaching methods, and the students always have a very strong motivation for learning, it is impossible to isolate the effect of the influence on the student while asleep. Application of hypnopaedic methods presupposes special conditions, specially equipped premises, and a special régime for those being taught.

But the most important objections come from doctors, who maintain that tampering with the sleep mechanism may disturb it and provoke nervous disorders. On this account, hypnopaedia has not been widely practised, although research in this field has given results that are certainly interesting from the point of view of the possible intensification of teaching.

Of greater popularity in the USSR is the notion of teaching in a state of relaxation—mental and physical relaxation induced by suggestion. Observations and experiments have established that memorization is easier in this state than in ordinary conditions.

Through muscular relaxation and autogenous training, students attain a state of physical and mental calm in which they are conscious of the weight and warmth of the right arm. In this state, sensory perception of factors extraneous to the information presented is reduced, the brain is freed of external inhibiting processes, attention becomes more selective, and concentrates wholly on the information presented.

Relaxopaedia is not regarded as a separate method of teaching but rather as a useful part of the normal teaching process which speeds the assimilation of language material and leaves more time free for creative language-learning activities.

The average number of words students are able to assimilate in the course of one lesson is fifty to sixty. Data available show that the best ratio of relaxopaedic to ordinary teaching sessions is one to five.

A special method for feeding information into the memory unconsciously has been devised by Professor B. I. Khachapuridze, in Tbilisi. By means of a special disc with a slot in it, placed in front of the lens of a projector, and rotating at a speed of seventy to ninety revolutions per minute, the list of words to be learned is shown on the screen.

The students are familiar with the words and their translation, since they have already been projected on to the screen in the ordinary way, and read out by an announcer. The students repeat these twice, with their translation, after the announcer, and the teacher explains any special points to be noted about individual words. The list contains about thirty words.

The rapid rotation of the disc makes it impossible to read these words when they appear a second time on the screen, but the effect of such a repetition is nevertheless very considerable since memorization by students using this method is, on average, 42 per cent better than with the ordinary method only.

The term "accelerated teaching methods" most frequently refers to the intensification of teaching through the use of different kinds and forms of suggestopaedia. Whatever differences there are in the approaches adopted, they are all based on the idea of influencing students by

New techniques for speeding up language learning are used in this language lab at the Maurice Thorez State Foreign Language Institute in Moscow. A dozen European languages are taught at the Institute.

Photo L. Pakhomova © APN, Paris

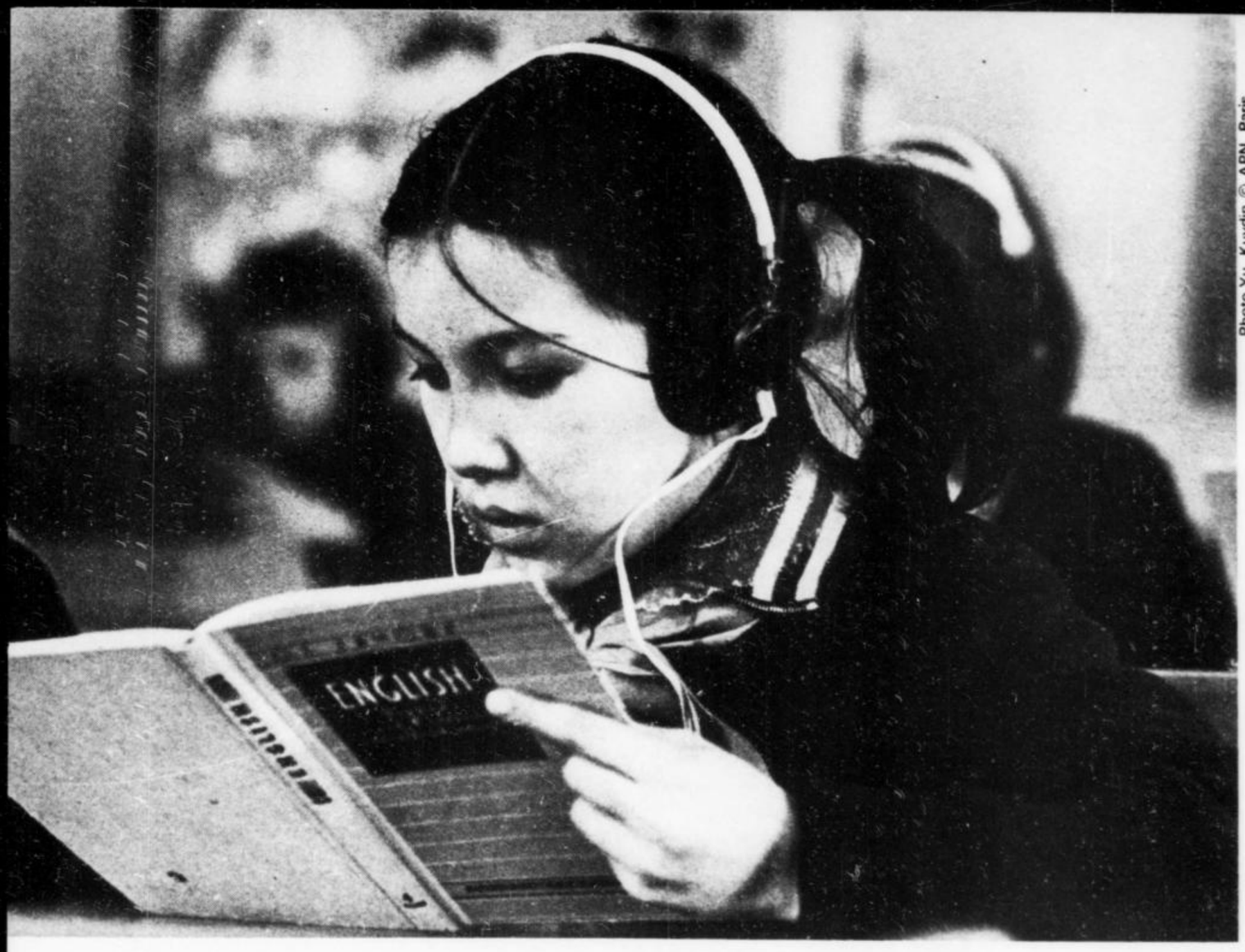


Photo Yu. Kuydin © APN, Paris

This young student from Uzun-Agach in Soviet Kazakhstan is using a tape-recorder to help improve her English accent.

suggestion, evolved by a Bulgarian scientist, Georgi Lozanov, director of the Scientific Research Institute of Suggestology.

Suggestology is based on the principles of joy and relaxation, and of the unity of the "conscious and the unconscious". A special atmosphere is created in the lessons—a climate of trust and joy which produces a desire to learn and confidence in one's ability. This is achieved by constant praise and encouragement from the teacher, by the choice of psychologically compatible working pairs, and by informal classroom arrangement.

The effect of suggestopaedic teaching methods is that the learning situation approximates to a very great extent to a non-academic situation, and psychological barriers hindering natural behaviour are eliminated. The formerly unused memory capacity of a student is brought into play and his mind and feelings are laid wide open to the influence of the teaching with a clarity, trust and interest characteristic of childhood. The adult stops feeling embarrassed and willingly assumes the role proposed, naturally and unselfconsciously performing a large number of linguistic and other exercises, and using new speech units as freely as though he had been familiar with them all his life.

However, the methodological assumptions of suggestopaedia do not by any means all find support. There is also criticism of the results obtained with this form of teaching. It is said that it leads to ungrammatical use of language, that students do not learn how to form new sentences independently, and that they cannot read anything that they have not encountered in oral practice.

To acquire these abilities, the very considerable emphasis on language mastery, i.e. knowing the rules for using various models in the language, is not enough. Soviet educationalists note that language skills are being formed with insufficient linguistic experience and with no out-of-class work at all, which means the pupil does no independent work on the language.

The changes and additions being made by Soviet educationalists to the suggestopaedic teaching system are designed to eliminate these defects. Teachers and theoreticians are trying to find a way of combining, in accelerated courses, the living language, games and music with the rudiments of linguistics, without which mastery of any language is inconceivable.

An accelerated language course may be complete in itself or it may constitute a particular stage in the process of learning a foreign language. As complete cycles there are, for instance, ten-month courses (full-time) and two-year courses (part-time), for qualified specialists.

These courses intensify the learning process by means of improved instruction by using the best modern methods for the teaching of foreign languages. Teaching methods are selected with an eye to the special characteristics of adult students, who want to know the reason for everything and are averse to purely mechanical work.

A short course on comparative Russian-English grammar has thus been recently introduced for beginners in some institutions (e.g. in the department for technical students at the Maurice Thorez Moscow State Foreign Language Institute). It is also compulsory to include in the syllabus, either at the beginning or at the end, a short stage using suggestopaedic methods. This, however, is replaced in some instances by the use of relaxopaedic or rhythmopaedic methods.

If suggestopaedic methods are used as an independent course of study, it is either as an introduction to independent language work, enabling students to have confidence in their own ability and to believe that positive results are attainable, or as a form of advanced training.

In the case of scientific workers, use is made of what is known as total immersion—nine-day courses of eight to ten hours of classes per day. These are designed to brush up people's knowledge of a language before setting off to a conference, for instance; to demonstrate their ability to use, in discussion, vocabulary accumulated in the process of reading; or to give them an oral foundation for the further study of a foreign language.

The part played by accelerated teaching methods should not, however, be thought of as confined only to the contribution they can make to the relatively small number of people attending courses. The development of these methods contributes to the improvement of foreign-language teaching as a whole.

This should take place within the context of further improvements in the planning system and in even fuller use of the potential in higher education institutions in which, in the Soviet Union, almost half of our scientific specialists (doctors and candidates for doctorates) are today concentrated. ■

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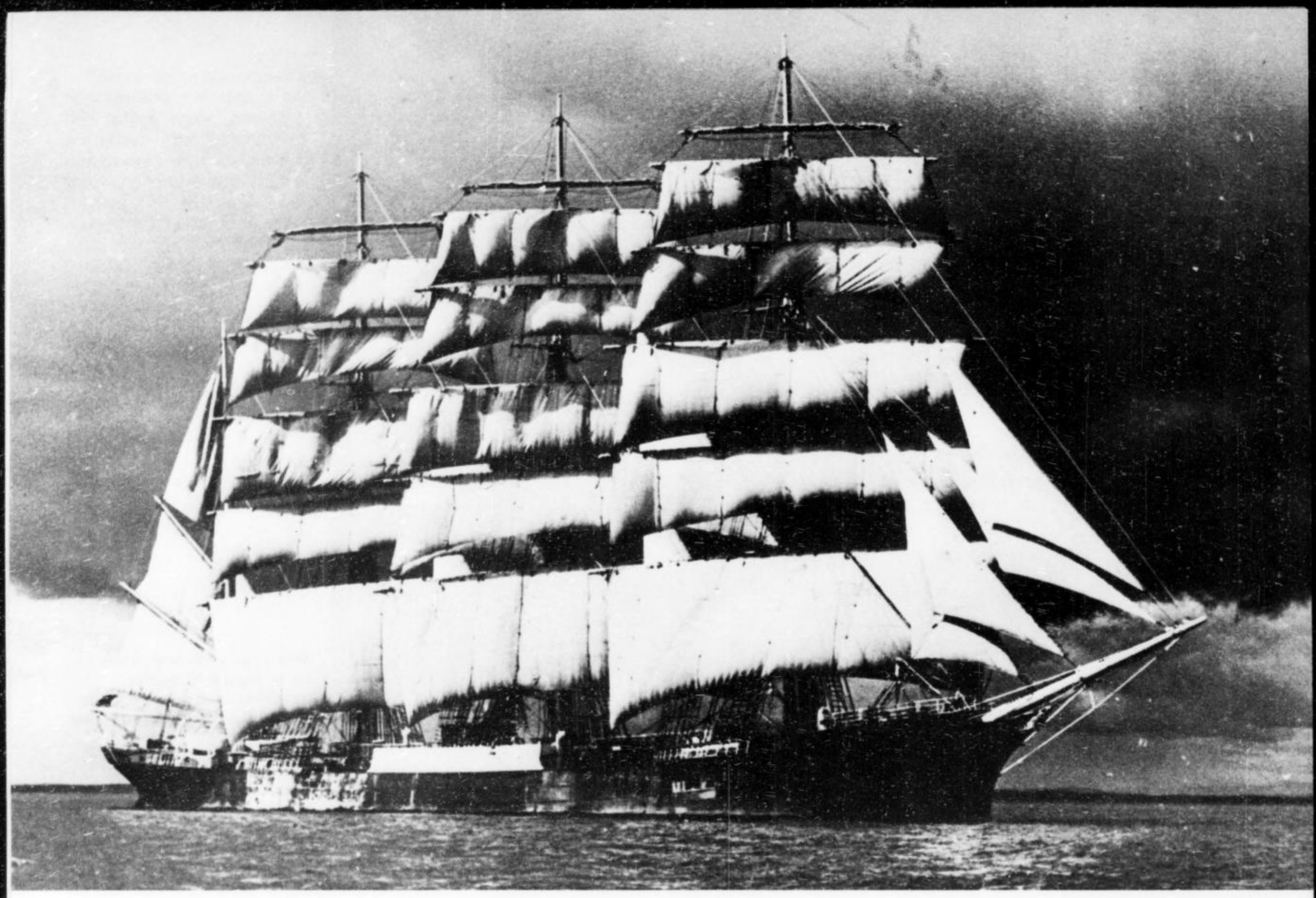


This photo of the Finnish vessel *Moshulu,* taken shortly before World War II, shows sail in all its billowing splendour.

The resurgence of sail

by Arthur Gillette

IN August 1980, a Japanese shipbuilding company, one of the world's biggest, launched a 66-metre-long craft equipped with a diesel engine and... two rigid rectangular sails. This odd-looking vessel, the *Shin Aitoku Maru,* followed a smaller experimental prototype of a sail-assisted motorized ship, the 77-ton *Daioh*, which had been launched by the same firm three years before.

Why should nautical engineers in one of the world's most technologically advanced countries have suddenly become interested in sail? The answer lies in soaring fuel costs which, for motorized commercial craft, rose fourfold between 1967 and 1978. As a result, hard-headed businessmen who not so long ago would have scoffed at the idea of wind-propelled cargo ships and tankers are now taking a hard look at the possible contribution that some form of the sailing ship could make to solving the energy problem.

Contrary to a widespread popular impression today, much of the world's maritime commerce was still being carried on wholly or partly by sail even after World War II.

Lighters sailed cargoes up and down the Ligurian coast of Italy until 1949, and the *maone*—familiarly known are *la barca bestia*—was still working the Gulf of Lions, and particularly the Barcelona-Balearics route, in 1952. The lumber trade along the east coast of the United States and Canada was, until World War II, handled in good part by sailing ships.

The Soviet schoolships *Sedov* and *Kruzenshtern* once brought phosphate back from Chile. Many other bulk cargoes were borne along the world's trade wind routes by sail until relatively recently, and sometimes quite rapidly. In the annual "grain races" from Australia to the U.K., which ended shortly before the outbreak of World War II, the first tall ships to arrive reaped the benefits of a seller's market.

The period following that conflict witnessed the decline and, ultimately, the demise of sail power on virtually all major sea trade routes, and most minor ones as well. Unleashed by the war, a sudden and intensive burst of technology research and development (that produced radar, among other things) could not but benefit mechanized shipping in the post-war era.

Motorized shipping also responded better than sail, in a period of increasingly complex, voluminous and rapid commerce, to demands for quick and dependable transport. Then, too, the mood and movement for social reform that swept most industrialized countries immediately after the defeat of Fascism made the long hours and rigorous working conditions on sailing craft unacceptable in comparison to the relatively easier lot of crews on motor vessels.

Finally, the shift from labour-intensive to capital-intensive maritime transport was made inevitable, in the late 1940s and 1950s, by the existence of an abundant and apparently inexhaustible supply of propellant over whose production and distribution the industrialized countries had nearly total control: fuel oil. The shift to motor power was inevitable—then. But was it definitive?

Even as fuel-propelled vessels came to dominate maritime trade routes almost exclusively in the 1950s and 1960s, in several parts of the world—and particularly in developing countries—sail power persisted. It successfully resisted, and in some cases even overcame, incursions from fuel propulsion. Although little-known outside their countries and zones of use, commercial craft continue today that rely on sail alone,

or on sail in tandem with motor, or as an auxiliary to fuel power.

Feloukas sail the Nile as they have for centuries, with placid grace; and on the other side of the world, in the West Indies, *gommier* canoes that look like hybrids of Carib Indian dugouts and Newfoundland dories still scuttle in and out of the bays of St. Lucia under sail, being the main means of locomotion of that island's fishermen. It is worth noting—and the point has validity well beyond the West Indies—that while St. Lucia's sailing *gommiers* are occasionally dangerous and require often backbreaking labour, they have at least not disturbed the coastal bio-system.

Moving further to sea, indeed out of sight of land, sailing commercial vessels are still found in several parts of the Third World. Although not often now used entirely alone, sail remains a source of at least auxiliary power for copra and trading schooners in the South Pacific, for example. The *Tiare Taporo,* one of the oldest and best known of the trading schooners of the region, boasted thirty years of sailing service to French Polynesia, the Cook Islands and New Hebrides when a cyclone wrecked her in 1968, and the ketch *Hawk* worked the Belep Islands, north of New Caledonia, until recently.

A similar species of inter-island schooner still accounts for the lion's share of seaborne freight and passenger transport up and down the Caribbean's necklace-like archipelago. These boats are still, stubbornly, one of the Lesser Antilles' cheapest and most popular ways of moving goods and people.

Much the same may be said of Indian Ocean dhows. Figurative descendants of the craft with which, according to the Old Testament, the Queen of Sheba and King Solomon explored these coasts, the East African version of the dhow owes less to myth than to long and solid Arabian sea-going experience.

Heritage aside, dhows are still the main vehicles for ocean-going commerce along the coasts of Somalia, Kenya and Tanzania, and farther afield, too, since larger dhows of many nationalities follow the Indian Ocean monsoon winds in a generally circular route from Africa to India and Pakistan and back. Their cargoes include an almost bewildering variety of goods, from salt, dates and mangrove *boroti* poles to coffee, tea, copper pots and trays, studded coffers, and tiles brought from India to Africa.

"Our boats, working under sail, will not die", Captain Omar Ahmed told me on the dhow beach near Nyali Bridge at Mombasa. One reason is, simply, that they are good business. It takes one and one-half days to travel from Mombasa northward to the dhow base at Lamu by bus over bad roads, and the trip costs 120 Kenyan shillings. When the monsoon is blowing (admittedly not year-round) the same trip is made under sail by Lamu's own *jahazi* dhows in two days for 65 shillings.

Other reasons, cultural more than mercantile, contribute to the dhows' persistence as a way of life perhaps as much as a mode of commerce. The boats themselves are lovingly and ritually decorated, boasting colourful paintwork and, often, intricate carving at the bows and around the poop. Sailmaking is an honour, sailors and passersby considering it a favour to be allowed to assist the master sailmaker. Singing traditional chanties and dancing, accompanied by drums and pipes, are favourite pastimes of crewmen onboard and ashore, while the drums also encourage them—as rhythmic music did European seamen not so long ago—when hauling up anchor or sail.

Probably the most striking example of modern-day sail-powered maritime commercial sea-going vessels are the Makassar schooners found in Indonesia. Numbering something on the order of 10,000 and apparently now growing after a period of relative eclipse, these 15-to 30-metre sailing vessels carry, each, up to 500 cubic metres of cargo ranging from the mundane to the exotic: cattle, soybeans, tamarind, bicycles, fill dirt, a few passengers, and, mainly, timber. In 1972, they accounted for approximately three-quarters of all domestic timber cargoes arriving in Java.

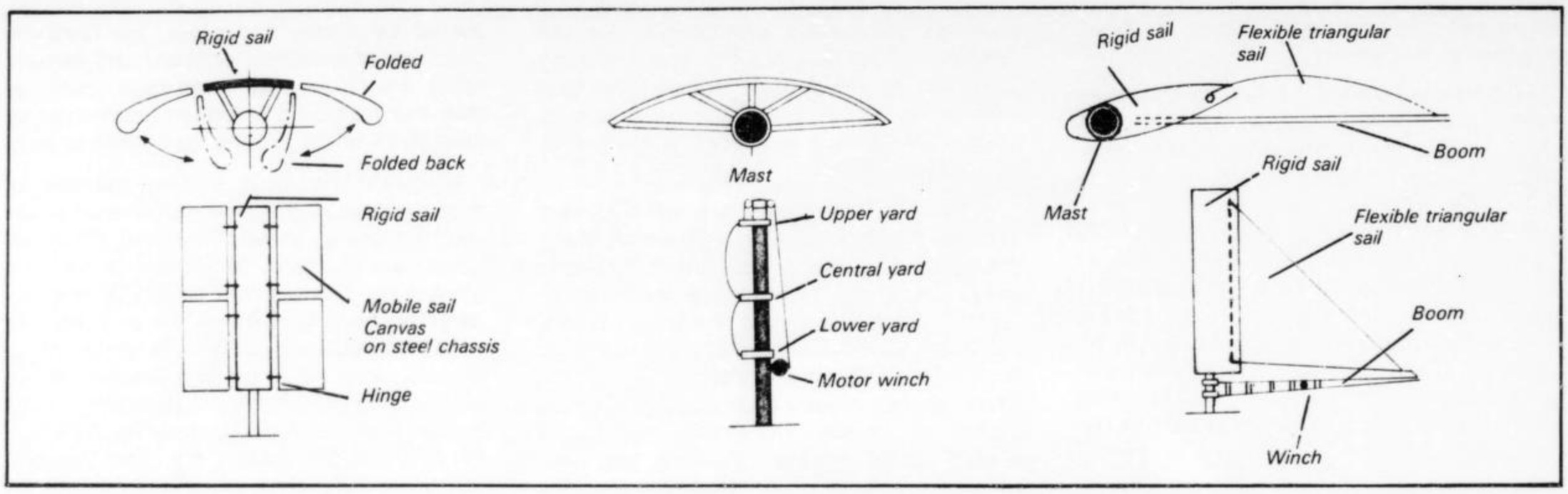
Like a well-disciplined ballet corps, they scurry toward Jakarta and other ports of Western Indonesia when April signals the onset of five months' east monsoon, only to flutter back as far as Irian Jaya with the west monsoon, which whistles out of the Malacca Straits from December to March. During the "intermissions", the two annual periods of slack wind, they shelter "offstage" (in home port, if they can) to refit. For non-urgent cargo, these vessels have undeniable advantages in a non-industrial country like Indonesia. For one thing, they rely solely on locally available resources for construction and operation.

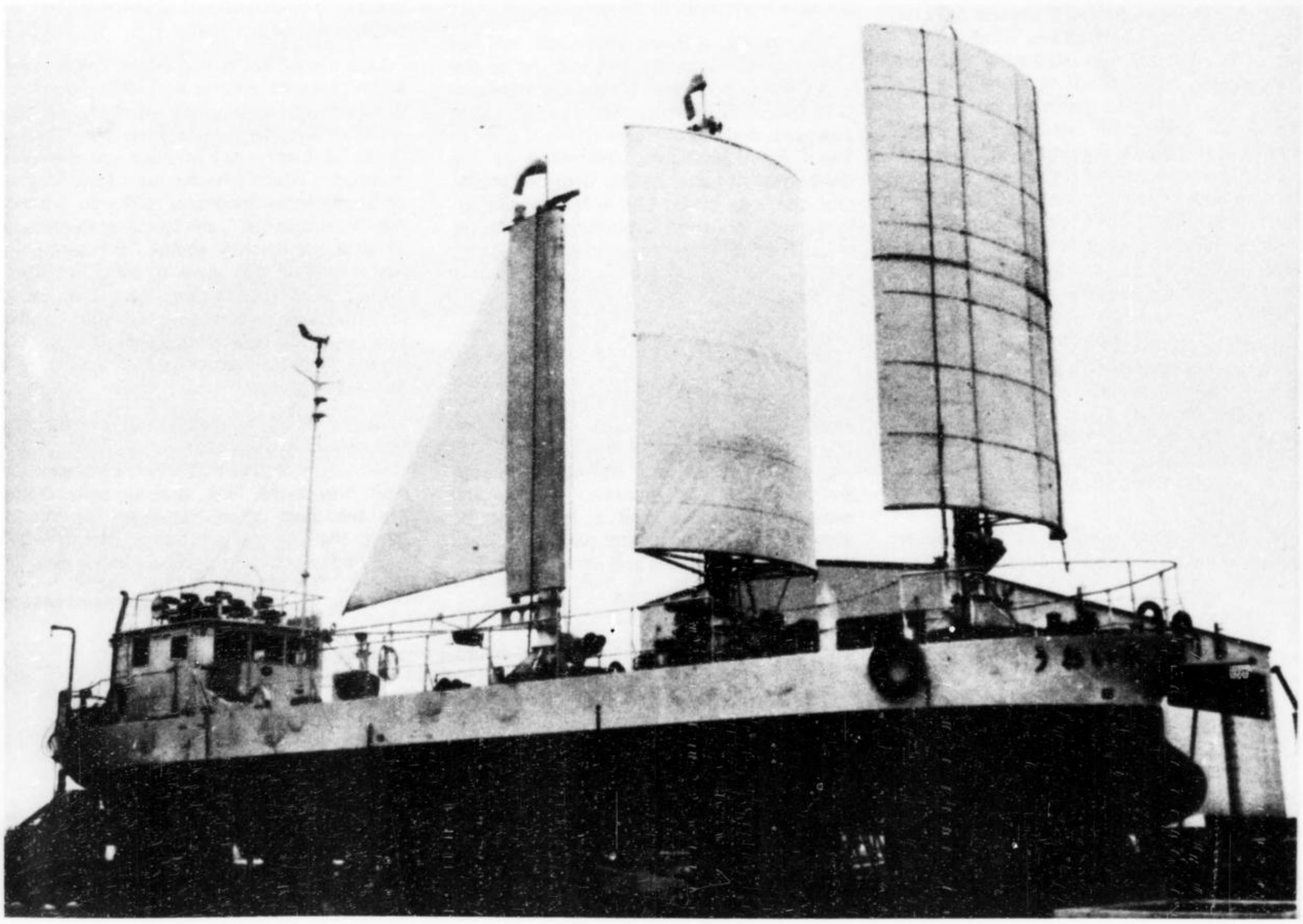
Summing up the main features of today's commercial vessels that go partly or wholly under sail, it is clear that they are not exempt from drawbacks. First, they are slow. Gone are the days when, between the World Wars, the four-masted German barks *Priwall* and *Padua* could hit peak speeds of over 14

CONTINUED PAGE 32

The 66-metre-long *Shin Aitoku Maru,* claimed to be the world's first tanker-cargo ship equipped with auxiliary sails to save fuel, being tested in the Japan Sea during August 1980.

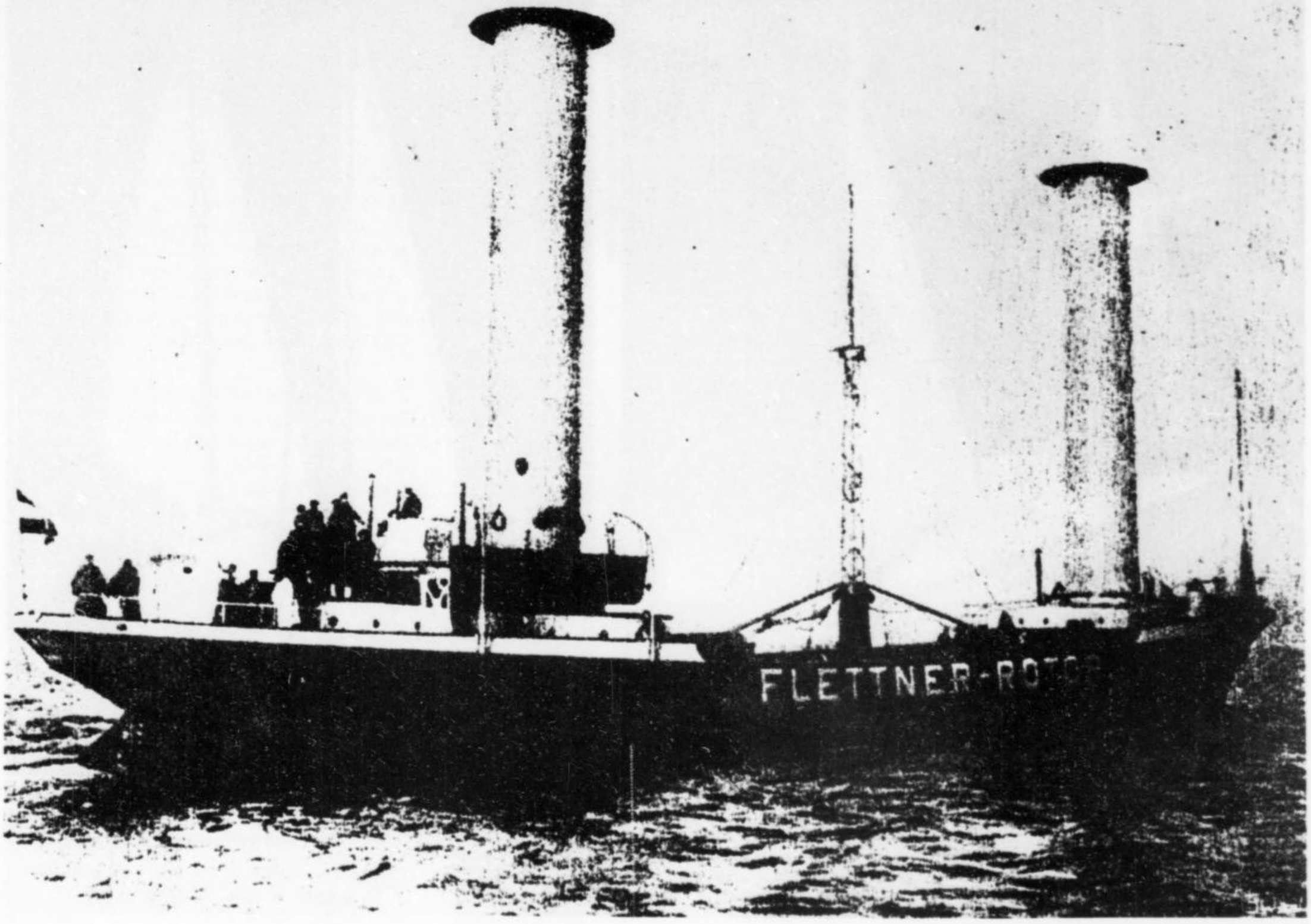
Photo V. Gosset © Sygma, Paris





A windship revolution?

It would have been unimaginable a few years ago, but today several industrialized countries faced with soaring marine fuel costs are seriously thinking of reintroducing the commercial sailing ship, at least in some form. Engineers have studied and learned from a wide range of sail rigs and configurations, from those of the high-speed tea clippers of the last century to those of Asiatic junks (see back cover) and East African dhows. Highly competitive yacht races in recent years have also spurred the application of scientific research to the study of wind propulsion, and as a result the use of sail has become an exact science. The *Clifton Flasher* (opposite page below), which held the world speed record for her sail area class for six years, is equipped with rigid sails, whose success in catamaran racing has suggested that they may rival soft sails in commercial ship propulsion.
But a possible new generation of commercial sailing ships will look very different from the windjammers of the past and the thoroughbred racers of the present. Experiments in Japan have shown that a big cargo ship driven solely by wind would be uneconomical, and the new craft coming off the drawing board tend to be engine-sail hybrids with the sails as an auxiliary form of propulsion. The goal is fuel economy rather than speed at any price, with other "musts" including easy cargo handling and maintenance, and labour-saving facilities.
Japan is one of the countries in the forefront of windship research. Photo above shows the *Daioh,* an experimental "mini-tanker" which during sea trials in 1979 proved capable of reducing fuel consumption by a useful 10 per cent. The *Daioh* is equipped with three types of sail (shown in drawings above photo): one rigid, one flexible, one part rigid and part flexible. Each is devised to be responsive to different wind conditions. Another idea of the *Daioh's* designers: a shipboard computer to regulate engine output in relation to wind speed. Lessons learned from the *Daioh* influenced the design of a bigger wind-assisted tanker, the *Shin Aitoku Maru* (see photo previous page).
Photo opposite page above shows the *Buckau,* an experimental ship of the 1920s fitted with the rotor system invented by the German engineer Anton Flettner. The rotor is not a pure wind propulsion system, as the propulsive force is generated by the powered rotation of vertical cylinders in the airstream. The system was operated at sea, including an Atlantic crossing.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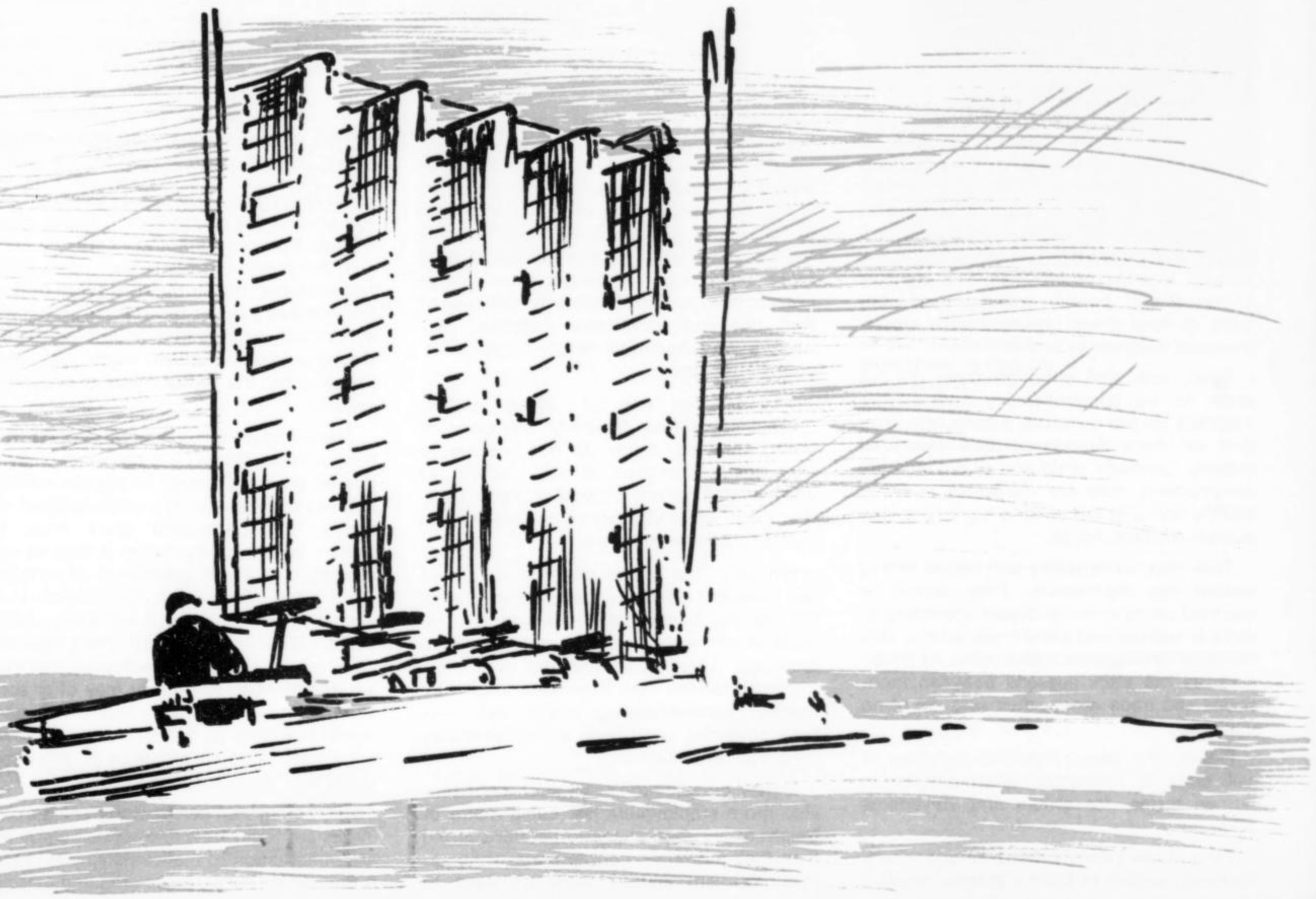


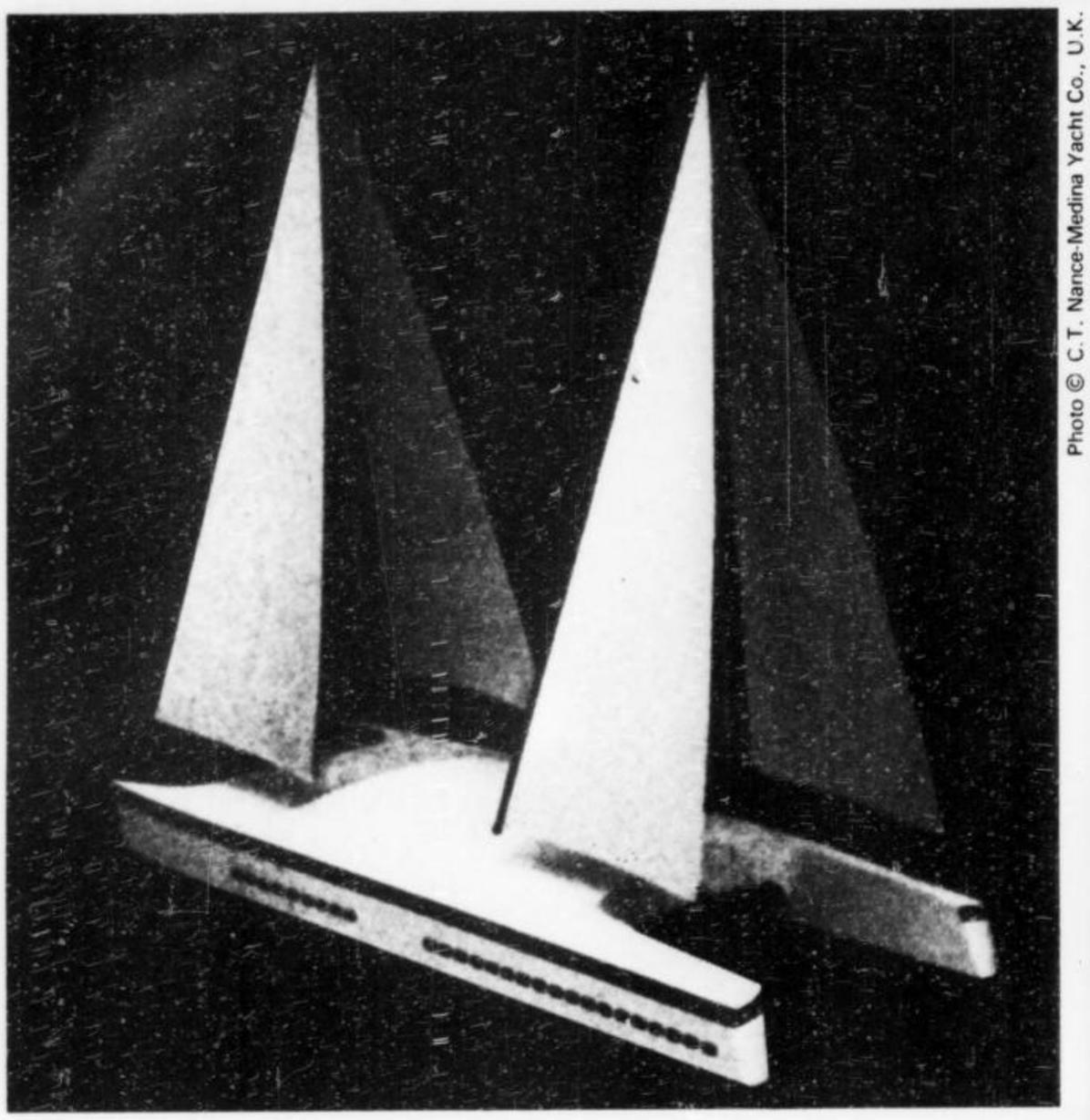


Photo © C.T. Nance-Medina Yacht Co., U.K.

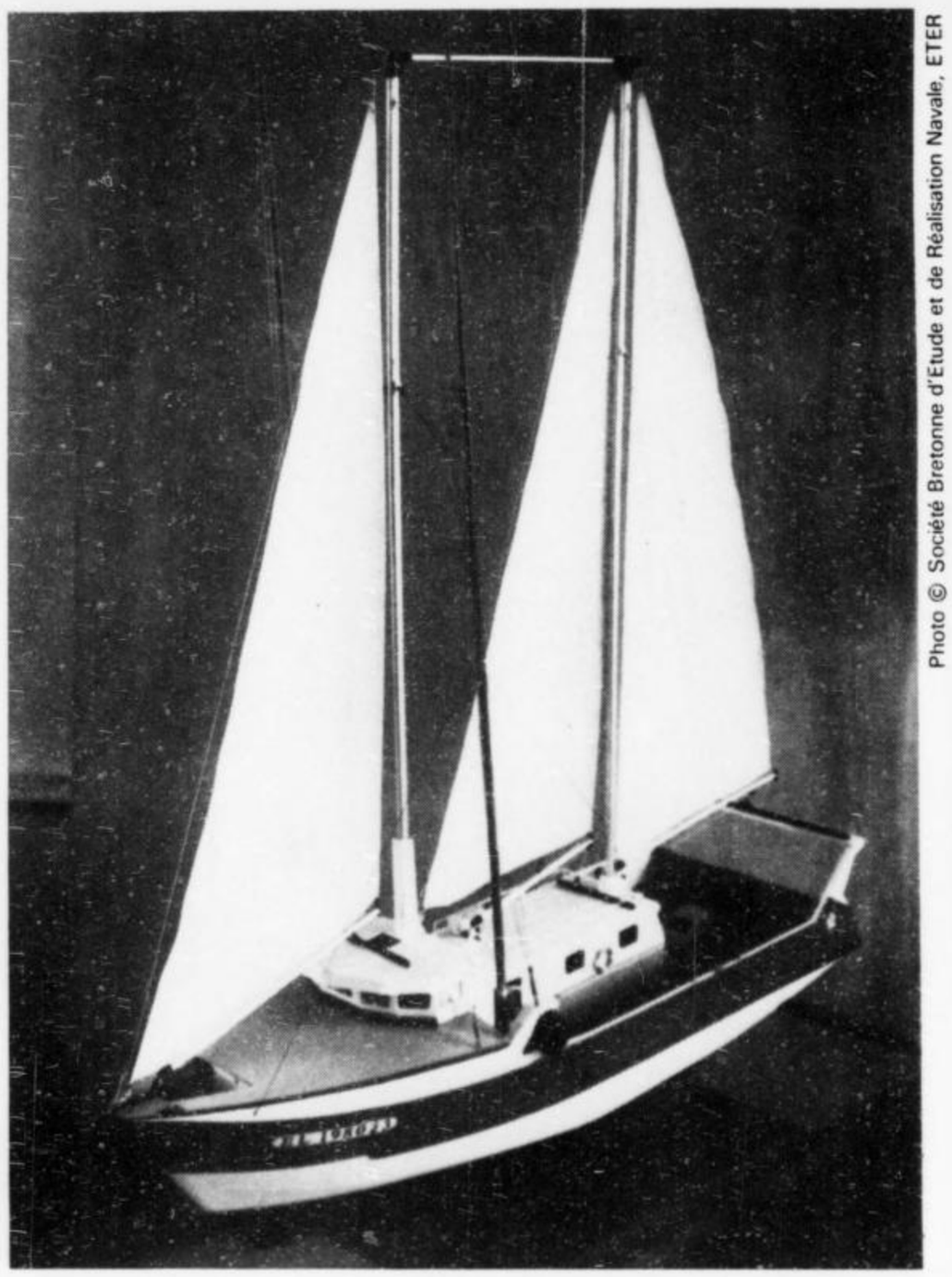


Photo © Société Bretonne d'Etude et de Réalisation Navale, ETER

Wind patterns throughout the world, like the requirements of each maritime trade and cargo, are so different that windship designs may also vary widely according to the route to be sailed, the ports to be visited, and the commodities to be carried. Pyramid-rig catamaran (model above) has been designed for a short-haul route where economy depends primarily on rapid stowing and unstowing of the sails. The area of sails is varied by rotating them around their stays. Model, above right shows one of three French fishing boats now under construction at Lorient in Brittany. The main engine will only be used to enter or leave port, or in totaliy windless conditions.

CONTINUED FROM PAGE 29

knots, and maintain them for a 24-hour period (albeit in ballast), while the best day's run for their sister ship *Pamir*, when loaded, was 321 miles, at an average of 13.4 knots. The Makassar schooners, Indian Ocean dhows and West Indian schooners probably seldom average more than four or five knots—a stiff human walking pace, but three or four times slower than a motor-powered freighter or tanker.

Then, too, and although there do not seem to be comprehensive and reliable statistics on the question, sailing craft may well be more dangerous than motorized vessels. Generally small and of rudimentary construction, they are vulnerable to tides, storms and that old sailor's nightmare, the sudden onshore squall.

Their very vulnerability also makes sailing vessels less dependable. They cannot be counted on to arrive or depart according to strict schedules and sometimes have to skip temporarily unapproachable ports. At times, such as the slack seasons between monsoons and trade-winds, their sails are of no use at all.

Finally, the labour-intensive handling of sail craft is ultimately unacceptable, in human terms, for sailors and stevedores alike.

Each of sail power's disadvantages does, however, appear to have a reverse, positive side. Are the boats slow? Well, not all cargoes are urgent and shippers continue to rely contentedly on sail for certain bulky loads that need only reach their destination in a matter of weeks or even months, rather than days. While sailing craft may also be more vulnerable to danger than motor vessels, they are concomitantly, because of their size and component materials, probably more susceptible to jury-rigged do-it-yourself repairs.

The positive side of sailing vessels' unreliability is their flexibility. Paragons of tramp shipping, many do not hesitate to alter their itineraries at will, calling at unscheduled ports if a cargo or passengers, that might otherwise not have travelled, are found to be waiting there.

Similarly, the labour-intensive nature of sail transport offers shippers the assurance that certain fragile cargoes will receive individual attention with, as a result, minimal breakage. Tiles, glassware and even electronic parts that, had they been loaded by modern crane-and-sling might well have been smashed, have been safely carried by ocean-going dhows.

It may be said, too, that such craft provide more employment per cubic metre of freight or per head of passenger transported than their motorized counterparts, although this argument should never be used to legitimize all-too-often unacceptable working conditions and wages.

On the whole, it must be admitted that the advantages of traditional forms of sea transport powered wholly or partly by sail do not decisively outweigh their drawbacks. Nevertheless, the stubborn survival of traditional sail as a viable commercial proposition is, in itself, an invitation to rethink modern shipping—an invitation made the more pressing by the rising costs of motorized vessels.

These include direct economic costs (fuel, construction, labour) but also what might be termed bio-social costs. As anyone who has crossed the Atlantic in a small sailboat can testify, the trade-wind route from the Canary Islands to Barbados is littered with oil spill, fuel drums, plastics of all sorts and other kinds of pollution that stretch in an almost unbroken path of industrial civilization's cast-off trash almost three thousand miles long. In fact, and without romanticizing its potential, sail power may offer some pointers for the development of an alternative maritime technology that has lower costs than modern shipping in economic, social and, perhaps, cultural terms.

A growing number of firms and governments are today devoting serious study and experimentation to the windship alternative. A Californian concern has prepared a design

for a 4,500 deadweight ton commercial schooner while groups in Britain are working on a variety of approaches that range from a fairly classical square rig and a semi-rigid adaptation of catamaran sails (originally used by Sri Lankan fishermen, but now widespread among yachtsmen) to a "rotor sail" system and even such exotic notions as using huge kites to drag freighters.

In France, a group of specialists have come up with a project for building three 19.30 metre multi-purpose ocean-going sailing fishing boats whose auxiliary engines would, it is claimed, use between 20 and 25 per cent of the fuel consumed by similar craft today that rely solely on motors. The boats should be launched in the next few months.

A central concern of experimenters is to ensure that labour on board possible future sailing craft would not be as backbreaking as it was on traditional sailing vessels. Attention is, for instance, being given to the idea of computerizing sail manœuvres.

A British firm has developed a design for a 137-metre sailing freighter able to carry full sail in a beam wind of up to 35 knots, thus obviating the need for difficult and potentially dangerous deckside work by crewmen. The design also features heavy-duty winches to reduce physical labour. In more general, cultural, terms, some specialists feel that far from enslaving crewmen, a return to sail could be much more stimulating than life at sea is today, when work on, say, a huge tanker has the same uninteresting rote character as does labour on an automobile assembly line.

But possibly the most advanced nation now in the windship field is Japan. It is calculated that the *Shin Aitoku Maru* uses only half as much fuel as a conventional ship. However, only 10 per cent of the saving is due to the sails; the rest is due to other features of the design and equipment. "Spectacular though the reintroduction of sails may have been", the engineers point out, "the engine is, and will remain, the principal means of propulsion". Nevertheless, partisans and opponents of windship alike cannot but appreciate the nice irony of the fact that the wind-assisted *Shin Aitoku Maru* is... an oil tanker! ■

Photo Charles Lenars © Atlas Photo, Paris

Two graceful eastern Javanese fishing boats—small cousins of the "Makassar schooners" which ply through the Indonesian archipelago carrying an immense variety of cargoes.

ARTHUR GILLETTE, *of the United States, is a staff member of Unesco's sector of Social Sciences and their Applications. He has worked as a deck-hand on sail-powered fishing boats in the Bahamas, and in 1969 crossed the Atlantic on a 7.6-metre cutter.*

BOOKSHELF

RECENT UNESCO BOOKS AND PERIODICALS

■ **National Languages and Teacher Training in Africa,** by Joseph Poth. A methodological guide for the use of teacher training institutes. 51 pp., 1980 (8 F).

■ **Education in the Arab States in the light of the Abu Dhabi Conference,** by Abdelhadi Tazi. Based largely on working documents and the final report of the Conference held in Abu Dhabi in November 1977, the purpose of which was to analyze the educational situation in the Arab States, review trends which had appeared since 1970, formulate strategies for the development of education, and devise a framework for regional and international co-operation. 81 pp., 1980 (12 F).

■ **The Child's First Learning Environment. Selected readings in home economics.** Prepared with the co-operation of the Center for the Family of the American Home Economics Association. 67 pp., 1980 (12 F).

■ **Advances in the Continuing Education of Engineers,** by Niels Krebs Ovesen. (No. 6 in Unesco's "Studies in Engineering Education" series). 199 pp., 1980 (36 F).

■ **Thinking and Doing.** Youth and a new international economic order, by Barbara Brühl Day. A synthesis of a series of activities undertaken by young people in 1977-78, with the assistance of Unesco. 96 pp., 1980 (20 F).

■ **Communication Planning for Development: an Operational Framework,** by Alan Hancock. (No. 2 in Unesco's "Monographs on Communication Planning" series). 198 pp. 1980 (40 F).

■ **1980-2000: The School Tomorrow** is the theme of the latest issue of Unesco's international quarterly review of education **Prospects** (Vol. X, No. 4 1980). Single issue, 16 F; Annual subscription, 56 F.

OTHER BOOKS RECEIVED

■ **The War. Peace Film Guide,** by John Dowling. Describes many of the best films concerned with war, the arms race and related themes, provides the necessary information for obtaining them. For people who are concerned with ending war and wish to use films to stimulate discussions. World Without War Publications, 67 E. Madison, Suite 1417, Chicago, Illinois 60603. 1980 (3rd revised and expanded edition) 188 pp. ($5).

■ **Brain of the Firm,** by Stafford Beer. A new and expanded edition of a work in which the author, a pioneer of managerial cybernetics, develops an account of the firm based on insights derived from study of the human nervous system. John Wiley and Sons Ltd., Chichester, U.K., 1981. 417 pp. (£11.50/$34.50).

CORRECTION

On page 30 of the August 1980 issue of the *Unesco Courier* ("Nature and Culture: The Human Heritage"), the geographical silhouette which served to indicate the location of Aachen Cathedral in the Federal Republic of Germany gave, owing to its reduced scale, the inaccurate impression of an encroachment onto the territory of the German Democratic Republic.

Letters to the editor

A CRITICAL EYE ON PICASSO

Sir,

Your Picasso issue (December 1980) is open to very serious criticism. In it you present the views of museum curators, historians, writers and other personalities. I protest against this cultural *Diktat!* Painting is a social phenomenon. It is offered to the public, not imposed on it.

Let me describe some of my impressions, those of an ordinary person, as I read the issue.

What strikes the reader is the extreme ugliness of some of the portraits, such as the *Weeping Woman* on page 48. Someone should have been given the opportunity to denounce such hideousness. And someone should have been allowed to criticize the lamentable mediocrity of the fresco at Unesco Headquarters in Paris (page 43).

Picasso was a prodigious iconoclast who brilliantly denuded surfaces and volumes, strewing his canvases with twitching geometrical forms and mutilated faces. To my mind this is not good enough. It makes one think of a researcher who throughout his life amasses designs and calculations which never actually lead to a discovery.

Guernica is typically Picassian bric-à-brac! Full of violence and demolition but totally devoid of feeling and fraternity!

On page 32 you show a sequence of illustrations entitled "The Metamorphosis of a Bull"?, which shows the different "states" of a Picasso engraving. The wretched beast is hacked, slashed and chopped until it ends up as a ridiculous wire skeleton. These illustrations are a comic strip which reveals a failure on the part of Picasso, the indefatigable and cruel bullfighter who is capable of mutilating and killing but not of creating.

Painting incapable of producing masterpieces is painting which has lost its universalist vocation. Fortunately, Picasso also produced humorous works, such as those depicting Don Quixote and the bullfights which decorate some of his ceramic plates. In my opinion this is the best Picasso, by far.

J.M. Geoffroy
Malzeville, France

Sir,

I am very far from sharing the desire, expressed by Unesco's Member States, to honour a painter such as Picasso (December 1980 issue). To my mind, his work is the very negation of painting! Never shall I purchase a canvas by this man who loved to depict the human face asymmetrically or even grotesquely. You consider him to be a painter of genius. In this case where do you rank Rembrandt?

You publish a photo of a masterpiece of sculpture created by Picasso: an old leather saddle and a pair of handlebars which are supposed to evoke the head of a bull!

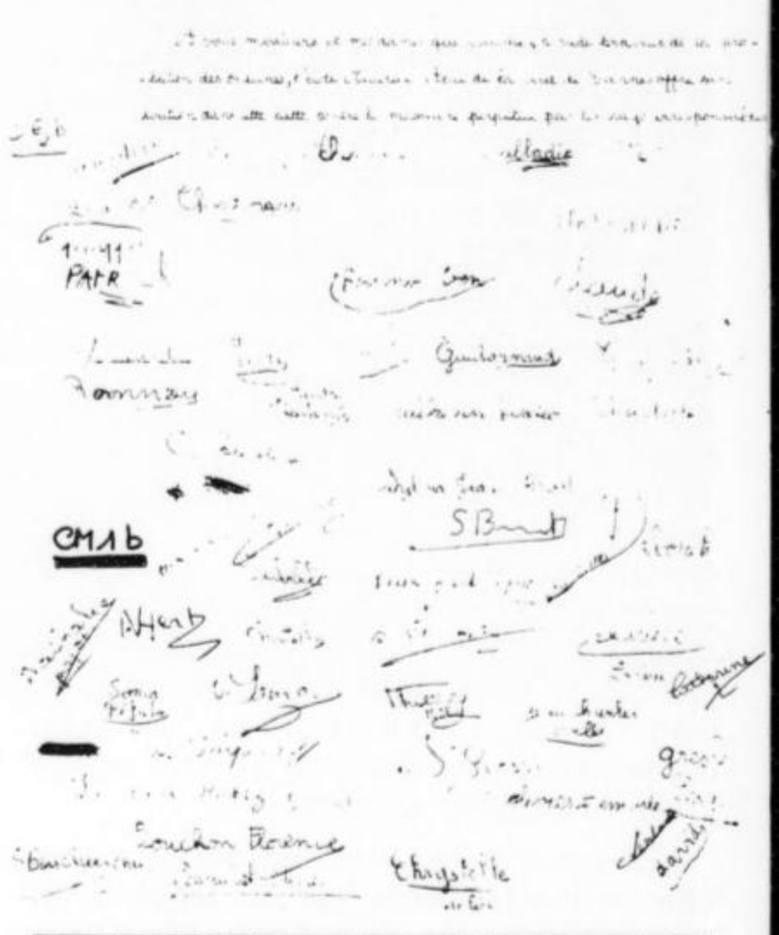
I am convinced that, despite the official tribute set forth in 25 languages, common sense will one day prevail.

Robert Neuville
Château d'Etoges, France

Save the whale

This letter bearing over a hundred signatures has been sent to us by children of the Maurice-Alice II school in Cannes (France).

It reads: "To you, ladies and gentlemen, who undertake the arduous task of protecting whales, the Maurice-Alice school of the city of Cannes offers its support in this struggle against the massacre perpetrated by irresponsible countries."



KEEP IT UP!

Sir,

It is encouraging to see that a thirteen-year-old ("Letters to the Editor", September 1980) reads the *Unesco Courier,* and I hope he will continue.

Please, however, keep the *Courier* at its present intellectual level ! Today we have too many things "written down", and need publications to challenge all of us, young and less young, to stretch our minds and grow. Over the years in which I have been reading the *Courier,* I have found it clearly written and well worth any struggle to understand articles beyond my former comprehension.

May I add a word of special commendation for the September 1980 issue on disarmament education.

Ruth A. Leppman
South Burlington
Vermont (USA)

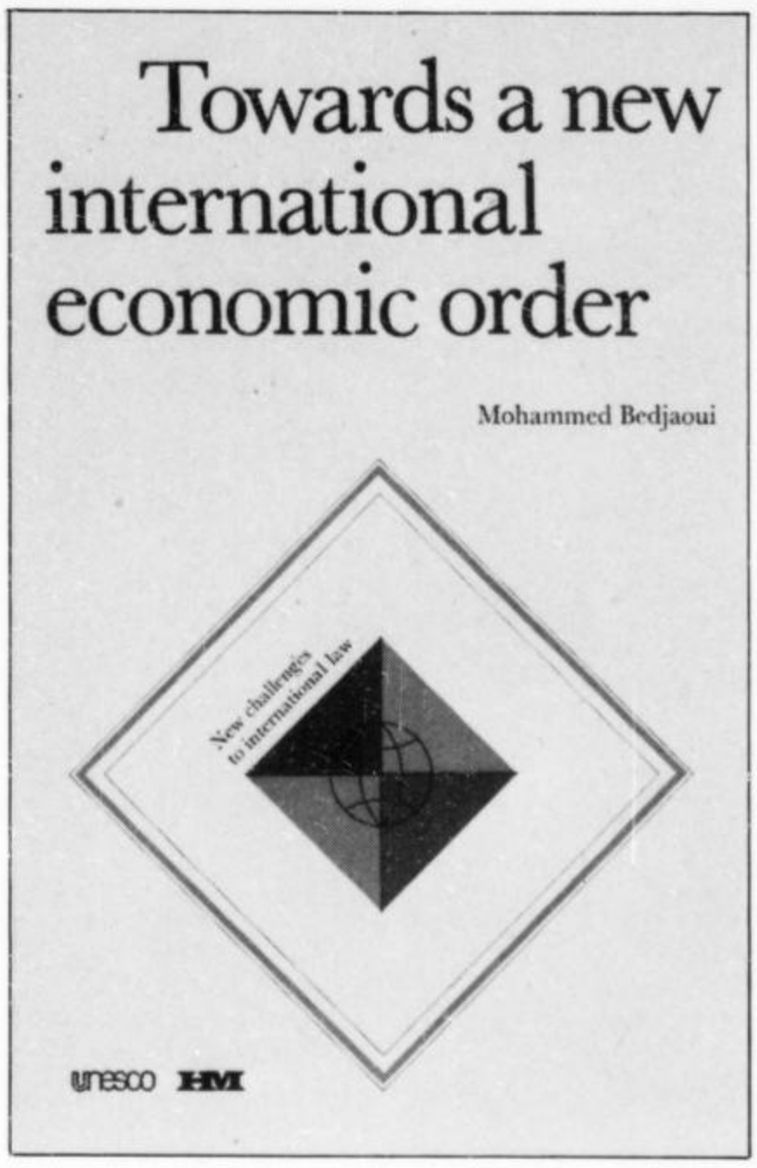
A FAREWELL TO ARMS

Sir,

As a twelve-year-old high school student, I should like to congratulate you on your September 1980 number on disarmament education. I should never have thought it possible that a country could live without an army. And yet Costa Rica does so. Costa Rica's example should be followed by all those who defend the cause of peace and human rights.

Helga Camalon
Chalabre, France

BRODARD GRAPHIQUE. COULOMMIERS - Dépôt légal C 1 - Février 1981 - IMPRIMÉ EN FRANCE (Printed in France)



"...an exciting and convincing account of why international law must be drastically reshaped to serve the altered character of international life. This wonderful book is by far the best available statement of a Third World position, at once eloquent and scholarly". This is how Professor Richard Falk of Princeton University has described Dr. Bedjaoui's important study Towards a New International Economic Order.

The first in a new Unesco series, "New Challenges to International Law", the book outlines "the international order of poverty and the poverty of the international order" that our world has brought into being, and considers what "international development law and the development of international law" could be.

Among the major questions analyzed by Dr. Bedjaoui :

- **What is meant by the "new international economic order"?**
- **How did the concept come into being?**
- **What is the significance of the current crisis?**
- **What ways and means exist for establishing the new order?**
- **Is the adaptation of the United Nations a necessary and sufficient condition for the establishment of this new order?**

The author, Dr. Mohammed Bedjaoui, is currently Algerian Ambassador to the United Nations and a member of the UN's Committee on International Law.

287 pages *38 French francs*

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Full sail ahead!

The graceful ribbed sails of a wooden junk plying through Hong Kong harbour contrast sharply with the austere lines of a modern, oil-powered vessel. Junks have been used for many centuries by the Chinese and other Far Eastern peoples to carry passengers and freight. Today, faced with soaring fuel costs, industrialized countries are looking hard at the possibility of reintroducing some form of sail-power to help solve the energy problem. New craft are being designed to integrate ancient maritime traditions with the latest labour-saving aids and computerized navigational equipment.

Photo Emmanuel Guillou © Atlas Photo, Paris